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RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

January 29, 2013

CRWQCB - REGION 8
MCB

JAN 29, 2013

Hand Delivered

Mr. Kurt Berchtold, Executive Officer
Santa Ana Regional Water
Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3339

Dear Mr. Berchtold:

Re: Watershed Action Plan (WAP)
Board Order No. R8-2010-0033
NPDES No. CAS 618033

Please find enclosed the Watershed Action Plan (WAP) for the area-wide NPDES Municipal Separate Storm Sewer System (MS4) Permit for the Riverside County portion of the Santa Ana River Watershed. The WAP is submitted in accordance with Requirement XII.B of Board Order No. R8-2010-0033 (NPDES No. CAS 618033).

If you have any questions regarding this letter or the submittal, please feel free to contact me at 951.955.1273.

Very truly yours,

D. Garcia for
JASON E. UHLEY
Chief of Watershed Protection Division

Attachments

ec: Santa Ana MS4 Permittees

DG:cw
P8/151181

Watershed Action Plan
Santa Ana Region
Riverside County

January 29, 2013

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Acronyms and Abbreviations

ABOP	Antifreeze, Batteries, Oil, Paint
Basin Plan	Water Quality Control Plan for the Santa Ana River Basin
BMP	Best Management Practice
Caltrans	California Department of Transportation
CAP	Compliance Assistance Program
CBRP	Comprehensive Bacteria Reduction Plan
CEQA	California Environmental Quality Act

CGP	Construction General Stormwater Permit
CMP	Consolidated Monitoring Plan
CNRP	Comprehensive Nutrient Reduction Plan
County	Riverside County
CWA	Clean Water Act
DAMP	Drainage Area Management Plan
District	Riverside County Flood Control and Water Conservation District
EEM	Engineered, earthen and maintained
EFHM	Engineered, fully hardened and maintained
EHM	Engineered, hardened and maintained
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
EPHM	Engineered, partially hardened, and maintained
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
HCOC	Hydrologic Conditions of Concern
HHW	Household hazardous waste
HMP	Hydromodification Management Plan
IEUA	Inland Empire Utilities Agency
IRWMP	Integrated Regional Water Management Plan
IS	Initial Study
LESJWA	Lake Elsinore and San Jacinto Watersheds Authority
LID	Low Impact Development
MEP	Maximum Extent Practicable
MSAR	Middle Santa Ana River
MSHCP	Multiple Species Habitat Conservation Plan
MS4	Municipal Separate Storm Sewer System
NAT	Natural
NEE	Not engineered and earthen
NRCS	National Resource Conservation Services
2010 MS4 Permit	Riverside County MS4 Permit Order No. R8-2010-0033
OWOW	One Water One Watershed
Permittees	District, County and Cities within the SAR
RBF	Robert Bein, William Frost and Associates
RCA	Western Riverside County Conservation Authority
RCTD	Riverside County Transportation Department
RCTC	Riverside County Transportation Commission
RDBMS	Relational Database Management System
Regional Board	Santa Ana Regional Water Quality Control Board
SAR	Santa Ana Region
Santa Ana Region	Portion of Riverside County within the Santa Ana River Watershed
SAWPA	Santa Ana Watershed Project Authority
SCCWRP	Southern California Coastal Watershed Research Project
SMC	Southern California Stormwater Monitoring Coalition
$SWCT^2$	Stormwater and Water Conservation Tracking Tool

SWPPP	Stormwater Pollution Prevention Plan
SWQSTF	Stormwater Quality Standards Task Force
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
USEP	Urban Source Evaluation Plan
USEPA	United States Environmental Protection Agency
WAP	Watershed Action Plan
WMWD	Western Municipal Water District
WLA	Wasteload Allocation
WQMP	Water Quality Management Plan

Executive Summary

The Watershed Action Plan (WAP) for the Santa Ana Region of Riverside County (SAR) and its Permittees is a requirement of the Riverside County Municipal Separate Storm Sewer System (MS4), Permit Order No. R8-2010-0033 (2010 MS4 Permit). The requirement was set forth by the Santa Ana Regional Water Quality Control Board (Regional Board) within the 2010 MS4 Permit, to develop a document using a coordinated watershed approach to address water quality and hydromodification impacts resulting from urbanization within the SAR. This goal is to be achieved using existing programs relating to the integration of water quality, stream protection, stormwater management, and re-use strategies with land planning policies, ordinances, and plans within each jurisdiction to the maximum extent practicable (MEP). The Regional Board also emphasized that the plans for each jurisdiction should address cumulative impacts of development on vulnerable streams; preserve or restore, consistent with the MEP standard, the structure and function of streams; and protect surface water and groundwater quality.

The WAP was developed through a collaborative process with the Riverside County Flood Control and Water Conservation District (District), the County of Riverside (County) and Cities in the SAR (Co-Permittees) (District and Co-Permittees collectively are the Permittees), and other watershed stakeholders. The WAP is structured to help the Permittees, and stakeholders collaborate with existing programs to take a holistic approach toward watershed management within the Santa Ana River Watershed.

1 WAP Purpose

The purpose of this WAP is to address watershed scale water quality impacts of urbanization in the Permit Area associated with Urban Total Maximum Daily Load (TMDL) Waste Load Allocations (WLAs), stream system vulnerability to Hydromodification from Urban Runoff, cumulative impacts of development on vulnerable streams, preservation of Beneficial Uses of streams in the SAR, and protection of water resources, including groundwater recharge areas. The WAP will also help improve integration of water quality, stream protection, stormwater management, water conservation and re-use, and flood management through an integrated watershed management approach potentially utilizing the Regional Geodatabase as the main tool to inform the development community of this approach.

The primary audience and users of the WAP will be Permittee staff. The WAP will help address potential local and regional water quality impacts associated with development and be a resource tool in the development process. In order to address water quality early in the development process, Permittee staff may utilize the WAP to assist development project proponents to comply with the multitude of plans and programs as required by the 2010 MS4 Permit. The Permittee staff may use the WAP and the associated Regional Geodatabase to better understand the development project site and potential constraints from a water quality perspective, as well as the potential water quality issues a project may contribute. The Regional Geodatabase will allow the Permittees to identify stormwater management facilities and improvements, as well as environmental constraints in the vicinity of a project in their jurisdiction.

The WAP is a resource to enable Permittee staff to address watershed scale water quality impacts through the integration of water quality, stream protection, Urban Runoff management, water conservation and re-use, and flood protection during the development processes. This may be accomplished by:

- Implementation of watershed protection principles and policies necessary for water quality protection, including avoiding disturbance of waterbodies, minimizing changes in hydrology and Pollutant loading, preserving wetlands and other natural areas, using appropriate Best Management Practices, employing the Ahwahnee Principles of community design, using the California Environmental Quality Act (CEQA), Low Impact Development (LID), and others.
- Completion of a Hydrologic Conditions of Concern (HCOC) study that incorporates the delineation of existing unarmored or soft-armored drainages in the SAR that are vulnerable to geomorphology changes due to Hydromodification, and those channels and streams that are engineered, hardened, and maintained.
- Hydromodification Susceptibility Documentation and Mapping Report
- Future development and implementation of a Hydromodification Management Plan (HMP) and development of a Hydromodification Monitoring Plan based on existing science and efforts.
- Identification of stream segments vulnerable to Hydromodification.

- Development, testing, and implementation of a watershed geodatabase as a primary interactive reference tool to facilitate the use of the WAP as a guidance document.
- Conducting training workshops and demonstration workshops for the WAP and the associated Regional Geodatabase.
- Develop a schedule to maintain the Regional Geodatabase and other available and relevant regulatory and technical documents associated with the Watershed Action Plan.
- Future development of recommendations for specific retrofit studies in the SAR to address TMDLs and potential Hydromodification issues.
- On-going coordination efforts for all of the Permittees and stakeholders.
- Additional reconnaissance and/or detailed studies relating to specific sites and geographic areas.

The WAP will also assist in identifying other potential stakeholders that may assist with coordination of resources in the SAR to help implement the objectives identified below.

1.1 WAP Objectives

The objectives of the WAP are identified in the 2010 MS4 Permit. Those objectives are:

- Address watershed scale water quality impacts associated with Urban TMDL WLAs;
- Address stream system vulnerability to Hydromodification from Urban Runoff;
- Address cumulative impacts of development on vulnerable streams;
- Preservation of Beneficial Uses; and
- Protection of water resources, including groundwater recharge areas.

The WAP may facilitate an integrated watershed management approach to improve the water quality and quantity control planning and approval processes. Along with the development of an integrated watershed management approach, the WAP describes the Regional Best Management Practice (BMP) approaches used to address Urban TMDL WLAs in the SAR, develop recommendations for specific retrofit studies to address TMDLs and Hydromodification, and describe any other regional effort taking place in the watershed that benefits water quality.

Program-specific objectives for the WAP include:

- Consideration of the watershed protection principles specified in Section 1.3;
- Consideration of the Permittee's planning and procedure review covered in Section 1.4;
- Identification of linkages between the WAP and the Stormwater Quality Standards Task Force (SWQSTF), Drainage Area Management Plan (DAMP), Water Quality Management Plan (WQMP), the implementation of LID, and the TMDL Implementation Plans;
- Development of a structure for the WAP that emphasizes coordination of watershed priorities with the Co-Permittees' Local Implementation Plans (LIP) identification of

other relevant existing watershed efforts, such as the Chino Basin Master Plan, Santa Ana Watershed Project Authority's (SAWPA) Integrated Regional Water Management Plan (IRWMP), etc., and their potential role in the WAP;

- Identification of Impaired Waters [Clean Water Act (CWA) § 303(d) listed] with identified Urban Runoff Pollutant sources causing Impairment, existing monitoring programs addressing those Pollutants, existing monitoring programs addressing these Pollutants, control measures, any BMPs that the Permittees are currently implementing, and any BMPs the Permittees are proposing to implement to address the Impaired Receiving Waters;
- Consideration of potential impediments to implementing regional and retrofit BMPs, as well as watershed protection principles during the planning and development processes, including but not limited to LID principles and management of the impacts of Hydromodification;
- Inclusion of the Hydromodification Mapping Study on the watershed Regional Geodatabase and will be available to watershed stakeholders via the Internet, and has incorporated the following information:
    - Delineation of existing non-armored or soft-armored drainages in the SAR that are vulnerable to geomorphological changes due to Hydromodification. Delineation of those channels and streams that are engineered, hardened, and maintained (EHM);
    - Potential causes of identified stream degradation including a consideration of sediment yield and balance on a watershed or sub-watershed basis;
    - Geographic Information System (GIS) layers for known sensitive species, protected habitat areas, drainage boundaries, and potential stormwater recharge areas and/or reservoirs; and
    - Available and relevant regulatory and technical documents accessible via hyperlinks;
- Development and maintenance of the watershed geodatabase, and development of a draft schedule for expected enhancements to increase functionality;
- Review of the Regional Geodatabase with applicable resource agencies, including but not limited to the Regional Board staff from the Stormwater TMDL and Watershed Planning/Program Sections, Permittees, stakeholders, SAWPA, utility agencies, environmental and resource conservation districts, and other interested and related parties. The review process is intended to verify attributes of the Regional Geodatabase, including the Hydromodification Mapping Study, and the intended use of the Regional Geodatabase to support regulatory processes (i.e., WQMP) and LID BMP feasibility evaluations;
- Description of Regional BMP approaches used to address Urban TMDL WLAs in the SAR;

- Recommendations for specific retrofit studies to address TMDLs and Hydromodification, and describe any other regional effort taking place in the SAR that benefits water quality;
- Identification of contributing jurisdictions and the stream segments that will benefit from coordination; and
- Submittal of the Draft WAP to the Executive Officer for approval.

1.2 Watershed Protection Principles

The following baseline watershed protection principles identified in Section XII.C.2. of the 2010 MS4 Permit are incorporated in the WAP:

- Limit disturbance of natural waterbodies and drainage systems; conserve natural areas; protect slopes and channels; minimize significant adverse impacts from Urban Runoff on the biological integrity of natural waterbodies and drainage systems;
- Minimize changes in hydrology and Pollutant loading; require incorporation of controls, including Source Control and Treatment Control BMPs to mitigate any projected increases in Pollutant loads and flows; reduce post-development runoff rates and velocities from a site to mitigate downstream erosion and stream habitat; minimize the quantity of Urban Runoff directed to impermeable surfaces and the MS4; and maximize the percentage of permeable surfaces to allow more percolation of Urban Runoff into the ground;
- Preserve wetlands, riparian corridors, and buffer zones that provide important water quality benefits; and establish reasonable limits on the clearing of vegetation from the project site;
- Encourage the use of BMPs to manage Urban Runoff quantity and quality, consistent with Section XII.C.1. of the 2010 MS4 Permit;
- Provide for permanent measures to reduce Pollutant loads in Urban Runoff from the development site; and
- Establish development guidelines for areas particularly susceptible to erosion and sediment loss.

1.3 Planning Development Process Overview

This section provides a general description of the typical planning development process. This overview addresses the necessary steps for incorporation of WAP measures throughout the planning process by a typical Co-Permittee. It should be noted that the District does not have land use authority and does not approve development projects.

Initial Development Project Meeting with Agency Planning Staff

The first presentation of a New Development project typically takes place in an initial meeting with the Co-Permittee planning staff. In the meeting, the development project proponent presents the scope and location of the project proposed. Preliminary plans for the project are presented, and the planning staff asks questions and provides initial input about the project as well as makes a determination of whether or not the proposed project is appropriate under the general plan, specific plan, and/or zoning of the area requested.

At this stage, the WAP may be referenced. The WAP and associated Regional Geodatabase is designed to be a tool for agency planners to assist in accomplishing an integrated watershed management approach to project development and ultimately improve water quality. The WAP should also be used by the Permittee planning staff as a tool to understand the issues and elements of integrated watershed management.

To utilize this tool successfully, the WAP should be used at this earliest stage of the project planning process. The WAP should be used by Permittee planning staff to identify the potential effects of the project on water quality, both from a Project-Specific basis and from a cumulative impact basis based on the surrounding development. Additionally, the Regional Geodatabase Stormwater and Water Conservation Tracking Tool ($SWCT^2$) should be referenced by Permittee planning staff to identify the physical characteristics of the project site, as well as identify the associated existing regional studies.

Once the Project-Specific impacts have been explored, the Co-Permittee planning staff should make initial Project-Specific recommendations to the proponent, explaining how to incorporate integrated watershed management and watershed protection principles identified in the WAP into the project design prior to the filing of an application for the entitlement to develop the project.

Project Submittal (Pre-Approval)

Once Co-Permittee planning staff has completed initial project evaluation/consultation with the developer, a preliminary WQMP (if applicable) should be submitted along with the initial checklist items. Preliminary WQMPs identify the potential water quality measures that will be incorporated into the project design. One of the advantages of having a preliminary WQMP is to implement water quality mitigation within the design of the project.

The project proponent should utilize the WAP to provide guidance in development of project features which demonstrate consistency with coordinated development and management of water and land resources. The project proponent will be given access to the WAP document and the $SWCT^2$ to assist with this effort.

The preliminary WQMP for the project will be evaluated by appropriate agency staff for adequacy and appropriateness for the project design. If the preliminary WQMP is deemed to be adequate, the project will then be deemed a complete filing (assuming all other submittal requirements have been met) and would move forward into the entitlement process.

CEQA Analysis

Discretionary development projects are subject to review under CEQA. CEQA analysis covers environmental effects of a project, including potential impacts to water quality. The primary vehicle for CEQA analysis is the CEQA initial environmental study checklist [Initial Study (IS) or CEQA checklist]. An IS is performed and, if substantial impacts are identified, an

Environmental Impact Report (EIR) is then prepared. If identified impacts are non-significant or non-significant once mitigation is applied, a Negative Declaration is prepared.

The preliminary WQMP should be considered during the CEQA analysis to assist in assessing the level of project impact and the formulation of effective mitigation measures. Evaluation guidelines pertaining to water quality impacts should be prepared by the local agencies to standardize the analysis of this part of the IS or EIR.

Project Approval

In addition to the CEQA analysis, the project will be reviewed by all affected agencies and departments for their specific project approval requirements. At the end of this review, the Permittee planning staff will assemble all necessary conditions of approval, required mitigation measures and design considerations, and assist the project proponent in developing the final project design that can be approved by the lead agency subject to these conditions and mitigation measures. The project recommendations should be coupled with the specific water quality requirements the project will need to implement at the project site. The recommendations and identification of water quality requirements will be documented in the WQMP noted in the conditions of approval and included in the approved final project design.

Final WQMP

Once the final design of the project has been issued entitlement approval subject to conditions, the Final WQMP is developed in collaboration with the final designs of the project and is usually submitted to the Co-Permittee planning department with the grading plan prior to issuance of a grading permit. The Final WQMP should substantially conform to the preliminary WQMP.

The Final WQMP should consider any design changes required from the time of the preliminary WQMP and also address any new impacts that were identified in the CEQA process. The Final WQMP must obtain approval from appropriate agency staff prior to the construction phase of the project.

Grading Plan

Once a final design of the project is developed, a grading plan is submitted to the Co-Permittee planning department for review and approval. The grading plan components include:

- Detailed Grading Plan;
- Elevations, dimensions, location, extent, and slope of proposed grading;
- Approved Tentative Map or Site Plan;
- Preliminary Title Report;
- Soils Report;
- Hydrology and Hydraulics Study; and
- Stormwater Pollution Prevention Plan (SWPPP).

The Grading Plan must receive review and approval from Co-Permittee planning staff prior to the construction phase of the project.

2 Watershed Resources and Characteristics

2.1 Location

The Santa Ana River Watershed, inclusive of the flood control zones identified above, is located in southern California, south and east of the City of Los Angeles. The Santa Ana River Watershed includes much of Orange County, the northwestern corner of Riverside County, the southwestern corner of San Bernardino County, and a small portion of Los Angeles County. Tributaries of the Santa Ana River within Riverside County include the San Jacinto River Watershed and the Middle Santa Ana River Watershed. The San Jacinto River Basin, a 768-square mile tributary of the Santa Ana River, is regulated by natural storage in Lake Elsinore and contributes flow into the Santa Ana River only as a result of rare high intensity storm events that cause overflow. The Santa Ana River Watershed is bound on the south by the Santa Margarita Watershed, on the east by the Salton Sea and Southern Mojave Watersheds, and on the northwest by the Mojave and San Gabriel River Watersheds. The area of the Santa Ana River Watershed is approximately 2,650 square miles.

The headwaters of the Santa Ana River are in the San Bernardino Mountains with two of its major tributaries: Bear Creek and Mill Creek. Other tributaries include Lytle Creek, originating in the San Gabriel Mountains, and the San Jacinto River, originating in the San Jacinto Mountains. These major tributaries confluence to form the Santa Ana River in the San Bernardino Valley, located at the southern base of the Transverse Ranges of the San Bernardino Mountains. The Santa Ana River traverses through the San Bernardino Valley before cutting through the Santa Ana Mountains and flowing to the Orange Coastal Plain. Eventually, the river discharges to the ocean in the city of Huntington Beach.

2.2 Physiography

At just over 7,200 square miles, Riverside County is rectangular shaped and is bordered on the west by Orange County; on the southwest by San Diego County; on the southeast by Imperial County; and on the north by San Bernardino County. Combined, San Bernardino and Riverside Counties are called the Inland Empire. The District encompasses portions of three major river basins in Riverside County: the Santa Ana River, the Santa Margarita River, and the Whitewater River.

Major topographic features within the Santa Ana River Watershed include the Santa Ana, San Jacinto, San Bernardino, and Little San Bernardino Mountains. The Santa Ana Mountain Range trends southeasterly along the western border of Riverside County, with a maximum elevation of 5,687 feet at Santiago Peak. The Santa Ana Mountains create a barrier between the Pacific Ocean and inland valleys of Riverside County. The major topographic barrier in the County is located about 50 miles east. The San Bernardino and San Jacinto Mountain Ranges run southeasterly across Riverside County with maximum elevations at 10,804 feet at the San Jacinto Peak and 11,502 feet at the San Gorgonio Mountain. Near the northern boundary of the County, the San Gorgonio Pass is a major breach of the barrier with elevations dropping approximately

2,600 feet. Between the Santa Ana and San Bernardino-San Jacinto barriers is an area of broken topography that includes valleys, plateaus, and minor mountain ranges.

2.3 Land Use

The Santa Ana River Watershed includes portions of Riverside, Orange and San Bernardino Counties, and is substantially urbanized with approximately 32% of the land being residential, commercial, or industrial. Riverside County has seen a change in land uses throughout time. Historically, the inland valleys have been vastly devoted to agriculture; however, over the past few decades, urbanization has risen rapidly and a majority of that land has been developed. Agricultural land now makes up approximately 10% of the watershed, and the watershed is home to approximately five million people.

The majority of the Santa Ana River Watershed is within the San Bernardino Mountains, which is home to the Federally managed San Bernardino National Forest. The forest covers more than 800,000 acres and includes five wilderness areas: San Gorgonio, Cucamonga, San Jacinto, Santa Rosa, and Bighorn Mountain.

2.4 Geology

Soil depths in the mountainous areas of the Santa Ana Region are shallow. On many of the steepest slopes, the soil cover does not exist, exposing the bedrock. The feasibility for infiltration in these areas is not promising. Alluvial soils are predominant in the valley areas of the County, but vary with respect to depths and types of alluvial deposits. Generally speaking, alluvial cones/fans near canyon mouths are coarse and highly porous. Deposits farther downstream tend to become finer and less porous. Certain areas of the valley have very slow/non-existent infiltration rates due to the high clay content in the alluvium.

2.5 Climate

The climate of the SAR is Mediterranean with hot, dry summers and cool, wet winters. Average annual precipitation ranges from 10-13 inches per year in the inland alluvial valleys, reaching 36 inches or more in the San Bernardino and San Jacinto Mountains. Most of the precipitation in the Santa Ana River Watershed occurs between November and March, with variable amounts of snow at higher elevations.

The region's climate cyclicality results in high surface water flows in the spring and early summer followed by low flows during the dry season. Winter and spring floods generated by storms are not uncommon in wet years. There are several types of storms that occur in the Santa Ana River Watershed. General winter storms occur during the period of December to March. They originate over the Pacific Ocean as a result of the interaction between polar Pacific and tropical Pacific air masses and move eastward over the basin. These storms, which often last for several days, reflect aerographic influences and are accompanied by widespread precipitation in the form of snow or rain. General summer storms usually occur during the period from July through September. They are associated with an influx of tropical maritime air originating over the Gulf of Mexico or the South Pacific Ocean and enter the area from a southeast to a southwest direction. Usually, the influx of tropical air is caused by circulation about a high-pressure area centered in the southeastern United States, but occasionally it is caused by the remnants of a tropical hurricane. General summer thunderstorms are accompanied by heavy precipitation over large areas for periods up to 24 hours, but showers may continue for as long as three days.

Local thunderstorms can occur at any time of the year, either during general storms or as isolated phenomena. They are most common, however, during the period from July through September, when the Southern California area may be covered by moist unstable air originating over the Gulf of Mexico. These storms cover comparatively small areas and result in high intensity precipitation of short duration.

2.6 Water Resources

The surface waterbodies in the SAR include: Santa Ana River (Reaches 3 and 4), San Jacinto River Basin, San Timoteo Creek Basin, Canyon Lake, Lake Elsinore, Lake Evans, Lake Fulmor, Lake Hemet, Lake Mathews, Lake Perris, Lee Lake, and Mockingbird Reservoir.

Tributaries to the Santa Ana River (Reaches 3 and 4) include: Temescal Creek (Reaches 1-6), Tequesquite Arroyo (Sycamore Creek), Day Creek, and San Sevaine Creek.

Tributaries to the San Jacinto River Basin include: San Jacinto River (Reaches 1-7 and North Fork), Bautista Creek, Fuller Mill Creek, Salt Creek, Strawberry Creek, Stone Creek, Indian, Hurkey Poppet, and Potrero.

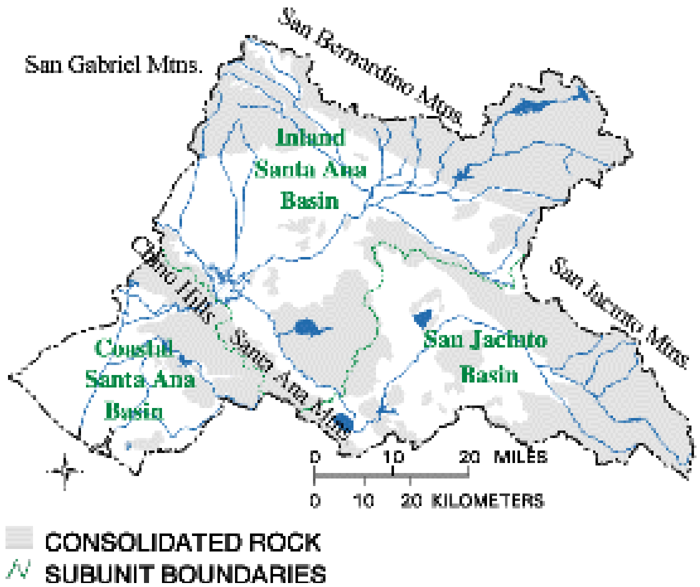
Tributaries to the San Timoteo Creek Basin include: San Timoteo Creek (Reaches 3 and 4) and Little San Gorgonio Creek.

The Beneficial Uses of the aforementioned surface waterbodies include municipal and domestic water supply, agricultural supply, industrial service supply, industrial process supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, cold freshwater habitat, wildlife habitat, and preservation of rare and endangered species. As many of the stream segments in the SAR are ephemeral, not all of these Beneficial Uses are consistently supported.

2.7 Groundwater

Groundwater basins within the SAR are used to store local and imported water for later use to meet seasonal and drought-year demands. Groundwater is artificially replenished during wet years or in emergency situations. In some cases, when reclaimed water is recharged into the groundwater basins, the County's ability to meet water demand during years of reduced supply is increased, and the reliability of the supply is enhanced. There are two groundwater basins located within the SAR: the Inland Santa Ana Basin, and the San Jacinto Basin. The location of each basin is shown in Figure 3 below.

Figure 1: Groundwater Basin Locations in Santa Ana River Watershed



The Inner Santa Ana Basin is located in the upper portion of the Santa Ana River Watershed, north of both Prado Dam Basin and the San Jacinto Basin. The Inland Basin is located in portions of Los Angeles, Riverside, and San Bernardino Counties and is comprised of alluvial deposits eroded from the surrounding mountains, varying in depth from less than 200 feet to more than 1,000 feet. The basin is recharged seasonally by infiltration of runoff from the San Gabriel and San Bernardino Mountains and also by water imported from Northern California and the Colorado River. Depths of water range from about hundreds of feet from the bottom of the mountain ranges to near the land cover in close proximity to rivers and wetland areas. The San Andreas Fault and other faults bound the Basin on three sides. The San Jacinto Fault subdivides the Basin. The interior faults are critical because they locally restrict groundwater flow and dictate the location of groundwater discharge. Groundwater management in the area is provided by Inland Empire Utilities Agency (IEUA), Western Municipal Water District (WMWD), and Three Valleys Municipal Water District (Three Valleys).

The San Jacinto Basin is a series of interconnected, alluvium-filled valleys surrounded by steep sides of bedrock mountains and hills. The deposits range in thickness from approximately 200 to 1,000 feet. Collectively, alluvium covers about one-half of the total area in the subunit. Before the development of the area, groundwater recharge to the flow system was provided by infiltration of mountain streams, most notably the San Jacinto River. Today, groundwater recharge is largely from irrigation return flows and from percolation ponds filled with reclaimed water. Ground-water discharge occurs primarily by groundwater pumpage. Water levels in the alluvium-filled sub-basins are greatly affected by local management practices, including augmentation of groundwater pumpage by use of imported water and recharge with reclaimed water. Groundwater management and monitoring is provided by Eastern Municipal Water

District (EMWD). EMWD provides the water supply to various cities, including Moreno Valley, Perris, Sun City, Menifee, Winchester, Nuevo, Homeland, Hemet, San Jacinto, and Valle Vista.

3 Regional Water Quality Efforts

3.1 Regional Watershed Efforts

Linking all of the important components and efforts related to the SAR creates an efficient and effective strategy in order to meet the latest MS4 Permit requirements. Important efforts include Regional BMPs, SWQSTF, IRWMP, LID, DAMP, LIP, WQMP, TMDLs, Chino Basin Master Plan, SAWPA, Western Riverside County Conservation Authority (RCA), and groundwater protection and clean-up. In 2012, the Regional Geodatabase was created for the SAR. This map is known as the "Stormwater and Water Conservation Tracking Tool", referred to as SWCT^2 and is the WAP's central component. The SWCT^2 integrates these efforts along with a variety of equally important components to the SAR into a centralized location accessible to project proponents through an online portal. The SWCT^2 is thoroughly discussed in Section 5.

3.1.1 Regional BMP Overview

Regional Treatment Control BMPs are an important tool in the water quality improvement toolbox. They play a significant role in regional retrofit programs, implementation of TMDLs, Hydromodification management, and LID offset programs. The factors that should be considered for implementation and approval of regional BMPs include location, type, effectiveness for the target Pollutants of Concern, tributary drainage area, site constraints and constructability, engineering feasibility, operation and maintenance requirements, monitoring protocol, adjacent land uses, and funding sources. Regional BMP implementation plans and strategies within the SAR are covered in more detail in Section 4.

3.1.2 Stormwater Quality Standards Task Force

The SWQSTF includes representatives from the Regional Board, Counties, Cities, environmental special interest groups, and others interested in water quality issues within the Santa Ana River Watershed. The SWQSTF was formed in 2003 to assist the Regional Board in providing the scientific and technical basis for modifications to existing bacteria quality objectives for recreational uses. They have led recommendations for changes in recreational use designations and implementation strategies, specifically related to the standards regarding body contact with water during recreational activities where ingestion of water is reasonably possible. These uses include, but are not limited to swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing, and uses of natural hot springs inclusive of the entire Santa Ana River Watershed and coastal waters. Water contact implies a risk of waterborne disease transmission and involves human health. Accordingly, criteria that are more stringent are required to protect this use than criteria for more casual water-oriented recreation. The SWQSTF has also led a basin-wide assessment of the current conditions of receiving waters, the nature of recreational uses, and areas where additional data or information is needed. SAWPA is a member of the SWQSTF and serves as the group administrator. The SWQSTF is working toward integration of water quality standards in the entire Santa Ana River Watershed and is currently in the process of obtaining a Basin Plan amendment for REC-1 use in the Santa Ana River.

3.1.3 Integrated Regional Water Management Planning – "One Water One Watershed"

Due to the dwindling natural potable water supply and increased water demand from population growth and urban development, the need for a sustainable water balance solution becomes more evident every day. Regional partnerships have expanded throughout the Santa Ana River Watershed to develop a solution for this problem. The Integrated Regional Water Management Plan also known as One Water One Watershed (OWOW), has identified the four major threats as reduction in water supplies from climate change combined with increased water needs; continuing drought in the Colorado River Region resulting in reductions of imported supply due to upper Santa Ana River Basin entitlements and continued long-term drought; reduction or loss of supply due to levee failure or changing management practices in the Delta Sacramento/San Joaquin Delta; and, interruptions in hydrology and groundwater recharge caused by population growth and development. To attain the long term Year 2030 vision for the Santa Ana River Watershed that is drought-proofed, salt-balanced, and supports economic and environmental viability, the next generation of IRWMP must be implemented.

IRWMP incorporates collaborative local partnerships which integrate regional watershed planning in order to solve problems on a regional scale and give all water interests a voice in the planning process. IRWMP has developed a fundamental plan which integrates a comprehensive planning tool to educate everyone involved in the 2010 MS4 Permit on the logistics of water supply and demand. An understanding of where water originates and how it is used helps resolve the water supply issue by increasing awareness and responsibility with the public. The method for resolving the water supply issue is through water quality permits and use of effective tools such as the SWCT[2]. The IRWMP or OWOW Plan, is located at the following link: www.sawpa.org/owow/the-plan/.

3.1.4 Chino Basin Master Plan

The Chino Basin Master Plan evolved from an integrated renewable energy plan, including organics management, biosolids, and regional co-composters, into a regional plan to also include managing water use and protecting and improving open space and wildlife habitat in this quickly urbanizing area. Improvements to the water treatment and delivery systems, Prado Basin activities, stormwater BMPs, natural treatment systems for water quality improvement, LID concepts, local development proposals, and recreation and trail systems are now being incorporated into the master plan. Dairy waste runoff, increased soil erosion, and increased stormwater flows with their resultant pollutants, have not only degraded water quality, but have also caused channel incision, loss of habitat, decreased infiltration and increased flooding within the Chino Basin. Continuation and expansion of these practices necessitates implementing sustainable approaches to LID and implementing barriers to control the entrance of contaminants and high flows into Receiving Waters. The inclusion of natural treatment approaches to water quality improvement and flood flow reduction will provide opportunities for important habitat improvements and valuable passive and active recreation opportunities. The Chino Basin Master Plan also contains a Salt Management Program to eliminate water quality problems in the Chino Basin associated with nitrogen salt. The Salt Management Program includes an ad-hoc committee to review cooperative strategies set forth by the Regional Board. The goal of the Chino Basin Master Plan is to evaluate and refine opportunities for multiuse and multiple purpose projects that improve water quality, flood protection, habitat and recreation and to identify the steps to implementation of these projects. The Chino Basin Master Plan is an integral component of the WAP and needs to be incorporated into the watershed improvement efforts. Updates and planned activities will be included in the online SWCT^2 so the Permittees can monitor and include the ongoing activities of the Chino Basin Master Plan.

3.1.5 Santa Ana Watershed Project Authority Integrated Regional Water Management Plan

SAWPA, a member and administrator of the SWQSTF, plays an integral role in protecting and restoring the water resources of the Santa Ana River Watershed. SAWPA has implemented an IRWMP to help restore and create a sustainable Santa Ana River. The main goal of this plan is to have a drought-proofed, salt-balanced watershed that supports economic and environmental vitality in the year 2030. The IRWMP unites the watershed and coordinates expertise, efforts, and resources to accomplish a sustainable environment. The plan addresses all water-related problems and capitalizes on SAWPA Member Agencies' successful reputation in watershed-wide planning and problem solving. It envisions a single unified submittal to the State, engenders a collaborative approach to solving problems, allows influence on projects over which the Permittees have no authority, and addresses systematic and long-term needs. The IRWMP is another integral component of the WAP and needs to be incorporated into the watershed improvement efforts. Updates and planned activities will be included in the SWCT^2 so the Permittees can monitor and include the ongoing activities of the Chino Basin Master Plan.

The SAWPA website (www.sawpa.org) includes links to the SWQSTF, its work products, and relevant documentation, including statutes, regulations, and guidance, considered by the Task Force in developing the proposed amendments.

3.1.6 Groundwater Protection Procedures

The significantly increasing population in the SAR is putting a high demand on limited groundwater supplies. Much of the groundwater in the SAR is experiencing a buildup of salts, and many of the groundwater basins exceed water quality objectives or are projected to exceed water quality objectives in the future. This is primarily a result of salts added by historic irrigated agriculture, historic municipal and industrial discharges, historic and current dairy operations, and the increase in salt concentrations resulting from reuse and recycling of groundwater. The Board initiated a total watershed approach for salt control beginning with the 1975 Basin Plan. The Total Dissolved Solids (TDS) Management Plan, developed through extensive ground and surface water modeling of the Middle, Upper Santa Ana River, and Elsinore/San Jacinto River Basins, contains specific water supply, wastewater, and groundwater management plans for the Region in order to control salt loadings from residential, commercial, industrial, and agricultural sources. Groundwater issues, protection plans, and recharge and monitoring locations will be included in the SWCT^2 to allow the Permittees to access and track this vital information.

3.1.7 Western Riverside County Conservation Authority

Rapid population growth throughout Riverside County in the 1980s and 1990s led to traffic congestion, increasing endangered species, and a variety of other environmental degradation concerns. In order to address these rising impacts, the RCA was created in 2004 to implement "one of America's most ambitious environmental efforts", known as the Multiple Species Habitat Conservation Plan (MSHCP). This plan aims to protect hundreds of native species of plants and animals and preserves a half million acres of their habitat. In conjunction with protecting the environment, the MSHCP allows the development and transportation infrastructure necessary for a healthy economy to move ahead without sacrificing the Santa Ana Region and Santa Margarita Region's environment and quality of life. The MSHCP is a unified plan to guide local development and provide for economic growth while protecting the environment. A map of the area covered by the MSHCP is identified in Figure 2 below.

Figure 2: MSHCP MapMap

Source: MSHCP Website: http://www.rctlma.org/mshcp/volume1/sec1.html#1.1

The MSHCP was adopted by Riverside County and the Cities of Banning, Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Menifee, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, Temecula, and Wildomar. In addition, the District, Riverside County Parks and Open Space District, Riverside County Waste Management Department, Riverside County Transportation Commission (RCTC), California Department of Transportation (Caltrans), and the California Department of Parks and Recreation also participated.

According to the RCA, of the 1.26 million acres covered by the MSHCP, 40% is designated for preservation. Of that half million acres, 69% is already conserved as public or quasi-public land. The acquisition of the remaining land is one of the most important activities of RCA. To date, more than 27% of the remaining goal of 153,000 acres has been acquired. All together, Riverside County has reached 77% of the goal in the MSHCP.

While reserve acquisition is RCA's core activity, RCA must also monitor development or "habitat-loss" within the MSHCP, review applications for infrastructure or development projects by public agencies and other regional entities like electric and gas utilities, monitor the species being protected, and manage the lands it acquires. Every year, RCA issues an Annual Report to update its members and the public on its progress. RCA plays an integral role in the SAR. Although RCA has developed their own online mapping tool, the SWCT[2] should incorporate existing and future land acquired by RCA, as well as the protected areas within their property limits.

3.2 Linkages to Urban Runoff Programs

The 2010 MS4 Permit requires Urban Runoff programs that are being implemented in the SAR by each of the Permittees. LID design strategies, DAMP programs, LIPs, and WQMPs are summarized in this section to cover the approaches taken by the Permittees. The following programs are related to such efforts within the SAR and can be found online through the Regional Board website:

- 2010 MS4 Permit;
- LIP;
- Comprehensive Nutrient Reduction Plan (CNRP);
- Comprehensive Bacteria Reduction Plan (CBRP)
- WQMP;
- DAMP; and
- Consolidated Monitoring Plan (CMP).

These documents collectively address Urban Runoff in the SAR and water quality levels are maintained and improved.

3.2.1 Low Impact Development Implementation

LID, also referred to as green infrastructure, is viewed as a cost-effective and environmentally preferable approach for the control of stormwater Pollution and minimization of Receiving Water impacts associated with Development. LID incorporates planning and design policies that mimic pre-development hydrology. LID techniques promote the reduction of impervious areas which may achieve multiple environmental and economic benefits in addition to enhanced water quality and supply, stream and habitat protection, cleaner air, reduced urban temperature, increased energy efficiency, and other community benefits such as aesthetics, recreation, and wildlife areas.

Incorporating LID into the planning and design process of every project would greatly benefit the watershed and its inhabitants. LID is a site planning strategy that uses a water balance approach to reduce Pollutant loads to Receiving Waters. Targeting all of these projects will assist in addressing maintenance, restoration, and improvement of water quality in their design. The 2010 MS4 Permit requires LID techniques to be incorporated within project WQMPs. The WQMPs require project proponents to consider LID BMPs.

3.2.2 Drainage Area Management Plan

According to the 2010 MS4 Permit, the latest DAMP, revised by the Permittees in 2011, identifies programs and policies, including BMPs, to achieve Water Quality Standards in the Receiving Waters. These BMPs can be organized into two categories: BMPs for existing facilities and BMPs for New Development and Significant Redevelopment. Both categories include regulatory activities, public education programs, waste management, and operations and maintenance activities. The Co-Permittees are currently implementing the 2011 DAMP which defines appropriate implementation strategies and standards for development activities. The DAMP is a dynamic document which is constantly undergoing revisions to incorporate the latest technologies and practices associated with water quality and stormwater management.

The DAMP also documents all of the specific stormwater-related activities carried out by the Permittees during the term of the 2010 MS4 Permit. This acts as an important organizational tool enabling all of the Permittees to stay informed and updated on completed tasks and planned goals. Integrating DAMP principles into the WAP and incorporating it into the SWCT[2] will be a beneficial tool to help keep everyone informed on the latest activities in the SAR. Ultimately, the WAP is required to be incorporated into the latest DAMP. The Permittees are required to incorporate applicable provisions from the revised DAMP into the LIPs for SAR-wide coordination of the WAP.

3.2.3 Local Implementation Plan

As summarized in the 2010 MS4 Permit, the LIP template was created to facilitate a description of the Permittees' individual programs to implement the DAMP. This includes the organizational units responsible for implementation and identification of positions responsible for Urban Runoff program implementation. The description for each Permittee addresses the overall program management, including internal reporting requirements and procedures for communication and accountability, including:

- Interagency/interdepartmental agreements necessary to implement the Permittees' Urban Runoff program;
- A summary of fiscal resources available to implement the Urban Runoff program;

- The ordinances, agreements, plans, policies, procedures, and tools used to execute the DAMP, including legal authorities and enforcement tools;
- A summary of procedures for maintaining databases required by the 2010 MS4 Permit; and
- A description of internal procedures to promote accountability

The LIP also covers TMDL requirements, if required, logistics regarding legal authority/enforcement procedures and compliance tracking, Illicit Connections/Illegal Discharges programs and responsibilities, litter, debris and trash control, sewer spills/leaks/failure inspection, maintenance and response coordination, construction site Construction General Permit (CGP) permitting and BMP implementation procedures, implementation of the Residential Program, New Development and Significant Redevelopment, WQMP and HMP implementation, descriptions of the credit programs, public education and outreach, a description of the Permittees' MS4 facilities and activities (see 2010 MS4 Permit for complete list), and training programs for Stormwater Managers, Planners, Inspectors and Permittee contractors.

Permittees are required to annually review and evaluate the effectiveness of their Urban Runoff programs to determine the need for revisions to their LIPs as necessary in compliance with the 2010 MS4 Permit and document revisions in the Annual Report.

3.2.4 Water Quality Management Plan

According to the National Resource Council, there is a direct relationship between impervious cover and the biological condition of downstream receiving waters. HCOCs and Pollutant concentrations are two immediate concerns related to Urban Runoff. Therefore, the Regional Board has set forth requirements to address specific concerns for different types of land development activities. WQMPs have been implemented throughout the SAR in order to address requirements of the 2010 MS4 Permit. WQMPs are a component of each Co-Permittees' LIP and focus on individual new and redevelopment projects targeting HCOCs as well as Pollutants of Concern to maintain, restore, and improve water quality.

The WQMP is a document submitted in order to ensure MS4 compliance for New Development and Significant Redevelopment projects. The 2010 MS4 Permit requires preparation of a WQMP for all projects within the SAR that meet the "Priority Development Project" categories and thresholds; if not, a Project-Specific WQMP is generally not required. Threshold guidelines used to determine if a project falls under a category that requires a WQMP are summarized in the WQMP Manual as well as the 2010 MS4 Permit. Co-Permittee staff will determine in each case when and how the WQMP requirements and guidelines are applied. A summary of the WQMP requirements for New Development and Significant Redevelopment projects as well as procedures for WQMP compliance and approval can be found in the SAR WQMP.

Typically, infiltration BMPs are prioritized as the preferable BMP choice when trying to meet WQMP and HCOC requirements. Because infiltration can be used toward HCOCs and Pollutant reduction, it is important to note that the SWCT[2] should be used as a tool that would help identify areas where Urban Runoff infiltration is an appropriate action, as well as locations where it may be infeasible given soil, geologic, or groundwater conditions. Those locations that cannot be clearly designated would require a more detailed level of assessment, consistent with the 2010 MS4 Permit requirements, in order to determine the feasibility/appropriateness of Urban Runoff infiltration. The WAP and $SWCT^2$ would then be integrated into the WQMP development process, providing consistency in interpretation and facilitating reviews.

The benefits of this approach include cost savings, comprehensive and consistent technical analyses, and simplicity, resulting in straight-forward guidance that will assist local governments and property owners to easily identify locations where infiltration or other technical solutions should occur. It would also help the Permittees determine whether a stormwater offset program could be developed to encourage investments in areas where additional Urban Runoff infiltration would provide water supply and water quality benefits. Coordination with such agencies as the Eastern Municipal Water District and the Chino Basin Water Master, and coordination with local developers within the SAR has identified support for capture and infiltration of Urban Runoff, as prioritized by the 2010 MS4 Permit, as an important way to augment and enhance the reliability of local water supplies. Many technical issues would need to be worked out as part of the development of an integrated WAP.

Because the WAP incorporates all of the important aspects of the water resources in the SAR which are required to be protected, most of the goals of the WAP are incorporated in the WQMP requirements. WQMPs are tracked within the $SWCT^2$ so interested parties can have a better understanding of past and current projects within the SAR and the limitations within a development project's sub-watershed.

3.3 TMDL and Hydromodification Coordination

The goal for the programs discussed within the WAP is to reduce detrimental impacts on the SAR caused from development and urban sprawl. The two major water quality related impacts caused by urban development are increased contamination and public hazard from flood impacts. These two impacts are hazardous to the environment and the public. In order to minimize and mitigate the impacts from increased contamination and flooding, TMDLs and Hydromodification requirements and standards were created.

Section 303(d) of the CWA requires that, every two years, the State must update the list of waterbodies for which Water Quality Standards (Beneficial Uses and Water Quality Objectives) are not attained, or are not expected to be attained, with the implementation of technology-based controls. TMDLs incorporate WLAs in order to meet these Water Quality Standards. TMDLs are an important tool for the Permittees to achieve water quality goals and are incorporated in the WAP and discussed in detail in Section 4.

Hydromodification plans and requirements were established to recognize vulnerable Urban Runoff management facilities and manage potential risks associated to them as well as the environment. The Hydromodification Susceptibility Mapping that is included in the Regional Geodatabase is another useful tool for the Permittees to use to meet Water Quality Standards as well as recharge groundwater and help restore the Beneficial Uses of Receiving Waters in the SAR. These requirements, along with current and anticipated implementation plans that agencies throughout the SAR are undertaking, are covered in Section 4.

3.3.1 Consolidated Program for Water Quality Monitoring

In order to have an effective monitoring program to accurately characterize Urban Runoff, the District administers the CMP in the SAR for the Permittees. The CMP includes both Storm Event and Dry Weather event monitoring of MS4 outfalls and Receiving Waters throughout Riverside County. The 2010 MS4 Permit allows the Permittees to develop a Monitoring Plan for the SAR that is included in the CMP in order to meet requirements of the Monitoring and Reporting Program. The Monitoring Plan measures WLA pre-compliance, BMP effectiveness, urban source and trend evaluation, and Receiving Water Quality and Hydromodification effects in the SAR. This program allows coordinated monitoring efforts needed for each of the sub-watersheds in the SAR to provide statistically sufficient data.

4 WAP Components

4.1 NPDES MS4 Permit & DAMP

The Urban Runoff Pollution control effort is a result of more than three decades of legislative work, beginning with the Federal Water Pollution Control Act, which, as amended, is now commonly called the CWA. The SAR DAMP plays an important role for this implementation. In summary, the CWA prohibits discharge of Pollutants to Waters of the United States from a Point Source, unless the discharge is in compliance with an NPDES Permit. The final ruling for the NPDES Permit Application regulations for Phase I Stormwater Discharges became effective on December 17, 1990, and is commonly called the "Phase I Stormwater Regulations". These regulations have not been revised.

The Phase I Stormwater Regulations are regulated nationwide through the U.S. Environmental Protection Agency's (USEPA) NPDES program. In California, the Phase I stormwater regulations require that the management program for an MS4 include an in-depth planning process that includes public outreach/participation and relevant intergovernmental coordination to minimize the discharge of Pollutants to the MEP by utilizing management practices, control techniques and systems, design and engineering methods, and other measures. The Phase I regulations define who is covered, prescribes a variety of mandatory information-gathering, planning, and reporting activities, and a compliance schedule.

The Permittees within the SAR obtained an "early" MS4 Permit from the Regional Board on July 13, 1990 for Urban Runoff from areas of Riverside County within the SAR. The SAR MS4 Permit was renewed and revised in 1996, 2002 and again in 2010. Each revision identified specific areas within the Santa Ana River Watershed within Riverside County that are not regulated under the SAR MS4 Permit. The 2010 SAR MS4 Permit regulates discharges of Urban Runoff from MS4 facilities within the Santa Ana River Watershed within Riverside County owned and/or operated by the Permittees. The 2010 SAR MS4 Permit required that the Permittees review and update their programs consistent with the current MEP standard.

In November 1991, the District, Riverside County, and the Cities of Beaumont, Corona, Hemet, Lake Elsinore, Moreno Valley, Norco, Perris, Riverside, and San Jacinto entered into a formal NPDES Stormwater Discharge Permit Implementation Agreement (Implementation Agreement) for the SAR. The reason for the Implementation Agreement was to outline the responsibilities of the Permittees and to provide for funding for program elements implemented regionally. The Implementation Agreement has been amended to add the Cities of Canyon Lake, Calimesa, Eastvale, Menifee, Murrieta, and Wildomar, to address additional requirements of the 2010 SAR MS4 Permit and establish the responsibilities of the Permittees as defined in the 2010 SAR MS4 Permit. The 2010 MS4 Permit requires the Permittees to annually evaluate the Implementation Agreement by November 30th to determine the need, if any, for revision.

The District, in its role as Principal Permittee, administers or participates in multiple interagency programs in conjunction with the Santa Ana River Watershed. These programs benefit the SAR, but may also look at bigger picture topics. The interagency programs include:

- CASQA efforts to support true source control initiatives;
- SQSTF;
- Southern California Stormwater Monitoring Coalition (SMC);
- Hazardous Materials Emergency Response;
- Household Hazardous Waste (HHW) Collection/ABOP Program;
- Commercial/Industrial Compliance Assistance Program (CAP);
- Various public education and outreach programs;
- Middle Santa Ana River TMDL Task Force;
- Lake Elsinore/Canyon Lake TMDL Task Force;
- Southern California Water Committee Stormwater Task Force;
- San Jacinto River Watershed Council; and
- Regional Stakeholder Workgroups such as:
  - Lake Elsinore / San Jacinto Watershed Authority; and
  - SAWPAs OWOW Planning Efforts.

The WAP is intended to meet the requirements set forth in the latest MS4 Permit applicable to the SAR in providing a long-term, holistic approach to address water quality and Hydromodification impacts resulting from urbanization. This goal is to be achieved through integration of water quality, watershed protection principles and policies, stream protection, Urban Runoff management, and re-use strategies with land planning policies, ordinances, plans within each jurisdiction to the MEP, address cumulative impacts of development on vulnerable streams, preserve or restore the structure and function of streams to the MEP, and protect surface water and groundwater quality. Implementation of the WAP improves integration of planning and approval processes with water quality and quantity control measures.

4.2 TMDLs

As previously discussed, Section 303(d) of the CWA requires the State to update the list of waterbodies for which water quality standards (beneficial uses and water quality objectives) are not attained, or are not expected to be attained. The list includes a description of the pollutants causing impairment and a schedule for developing a TMDL for each pollutant. The TMDL is the maximum load of a Pollutant that can be discharged from Point and Nonpoint Sources without Impairing Water Quality Standards. A TMDL must include WLAs for Point Source discharges, load allocations for Nonpoint Source discharges, and a margin of safety. TMDLs are implemented by those entities who are allocated WLAs and load allocations. Multiple TMDLs exist within the SAR and will be incorporated into the SWCT[2] in order to track the progress of each. Table 1 identifies the current approved TMDLs in the SAR.

Table 1: Current Approved TMDLs in the SAR

WATER BODY NAME	POLLUTANT
Canyon Lake	Nutrients
	Bacterial Indicators
Lake Elsinore	Nutrients
	Organic Enrichment/Low Dissolved Oxygen
Santa Ana River, Reach 3	Bacterial Indicators

Point Source discharges are controlled effectively through implementation of the Regional Board's core regulatory program. Nonpoint Source discharges remain the most significant source of Pollutants in many of the waters in the SAR. TMDLs are an important part of the Regional Board's regulatory program for assessing and controlling Nonpoint Source contributions to Pollutant loads. Measures developed for the Plan for California's Nonpoint Source Pollution Control Program and the Nonpoint Source Management Plan's three tier approach (voluntary compliance, regulatory encouragement, issuance of waste discharge requirements) are and will be utilized to develop effective TMDL implementation programs for Nonpoint Source discharges. Modification of MS4 Permits, permits for individual industrial and construction facilities/activities, watershed planning, and the involvement of stakeholders are also important parts of effective TMDL development and implementation. TMDLs areincorporated into a region's Basin Plan as a Basin Plan Amendment (BPA). Once a TMDL has been incorporated into the Basin Plan, the Regional Board is responsible for ensuring TMDL implementation and effectiveness. The implementation and monitoring phase requires just as many staff resources (if not more) as were used to develop the TMDL itself. Even if local agencies or private interests are responsible for implementing components of the TMDL, Regional Board resources are required for reviewing and negotiating specific implementation strategies, providing oversight of the implementation program (which could include enforcement), monitoring and assessment of the TMDL effectiveness, and revision of the TMDL, if necessary.

The Permittees are participating in several studies in conjunction with the Stormwater Monitoring Coalition (SMC), SWQSTF, the Lake Elsinore and Canyon Lake TMDL Task Force, the Middle Santa Ana River (MSAR) TMDL Task Force, and Southern California Coastal Water Research Project (SCCWRP) to address the elevated Pollutant levels. TMDL Implementation Plans have been set forth for the MSAR and the San Jacinto River Watershed. These plans consist of collecting outfall monitoring data, site identification, and site prioritization yearly for further evaluation in the next phases of the Urban Source Evaluation Plan (USEP) Resolution No. R8-2008-0044. The monitoring requirements set forth in the 2010 MS4 Permit require the Permittees to implement a "Consolidated Program for Water Quality Monitoring", (CMP), to evaluate BMP effectiveness in the SAR. Effectiveness is evaluated based on the WLAs and a specified compliance date for the specific TMDL. The Permittees are also required to revise the

DAMP to incorporate the results of the USEP and/or other studies. The DAMP revisions include implementing schedules for meeting WLAs, recording results of the USEP and/or other studies, BMP effectiveness evaluations, and evaluating compliance with the WLAs for Urban Runoff by initiating a WLA pre-compliance evaluation monitoring program. WQMP revisions to incorporate BMPs per the USEP as well as development of a CBRP to achieve compliance with the WLAs by the compliance dates are also required. Specific information regarding WLAs, task force members, and other TMDL-related information can be found in the Order and the Basin Plan.

4.2.1 Middle Santa Ana River Bacterial Indicator TMDL

In February 2005, the Regional Board amended the Santa Ana River Basin Plan to incorporate the MSAR Waterbodies Bacterial Indicator TMDLs. The Amendment was adopted by the Regional Board in August 2005, and approved by the Regional Board, Office of Administrative Law on September 1, 2006. The TMDLs were approved by the USEPA on May 16, 2007.

4.2.1.1 Comprehensive Bacteria Reduction Plan

In response to the TMDL and MS4 Permit requirements, the CBRP was developed for the SAR. The CBRP is a long-term plan designed to achieve compliance with Dry Weather condition (April 1st – October 31st) WLAs for Bacterial Indicators established by the MSAR Bacterial Indicator TMDL. The CBRP was developed collaboratively by the Permittees participating in the MSAR TMDL and the MSAR TMDL Task Force. The need for the development of the CBRP is described in the Findings section of the 2010 MS4 Permit, e.g.:

- Section II.F.7 – "The MSAR TMDL Implementation Plan assigns responsibilities to specific MS4 dischargers to identify sources of Impairment, to propose BMPs to address those sources, and to monitor, evaluate, and revise BMPs as needed, based on the effectiveness of the BMP implementation program. These are generally considered as the short-term solutions. The MSAR Permittees are required to develop and implement a long-term solution (a CBRP) designed to achieve compliance with the WLAs by the dates specified in the TMDLs."
- Section II.F.14 – "The Permittees are required to develop a CBRP to achieve compliance with the WLAs by the compliance dates. Periodic evaluation and update of the CBRP may be necessary based on a BMP effectiveness analysis to ensure compliance with the WLAs by the compliance dates."
- Section II.F.16 – "In the absence of an approved CBRP, the WLAs become the final numeric WQBEL that must be achieved by the compliance dates." Based on these findings, the Regional Board established specific requirements for the CBRPs content.
- Section VI.D.1.c.i – "The MSAR Permittees shall prepare for approval by the Regional Board a CBRP describing, in detail, the specific actions that have been taken or will be taken to achieve compliance with the Urban WLA during the Dry Season (April 1st - October 31st) by December 31, 2015. The CBRP must include:

(1) The specific ordinance(s) adopted to reduce the concentration of Bacterial Indicators in urban sources.

(2) The specific BMPs implemented to reduce the concentration of Bacterial Indicators from urban sources and the water quality improvements expected to result from these BMPs.

(3) The specific inspection criteria used to identify and manage the urban sources most likely causing exceedances of water quality objectives for Bacterial Indicators.

(4) The specific regional treatment facilities and the locations where such facilities will be built to reduce the levels of Bacterial Indicators discharged from urban sources and the expected water quality improvements to result when the facilities are complete.

(5) The scientific and technical documentation used to conclude that the CBRP, once fully implemented, is expected to achieve compliance with the Urban WLA for Bacterial Indicators by December 31, 2015.

(6) A detailed schedule for implementing the CBRP. The schedule must identify discrete milestones to assess satisfactory progress toward meeting the Urban WLA during the Dry Season by December 31, 2015. The schedule must also indicate which agency or agencies are responsible for meeting each milestone.

(7) The specific metric(s) that will be established to demonstrate the effectiveness of the CBRP and acceptable progress toward meeting the Urban WLA for Bacterial Indicators by December 31, 2015.

(8) The DAMP, WQMP, and LIPs shall be revised consistent with the CBRP no more than 180 days after the CBRP is approved by the Regional Board.

(9) Detailed descriptions of any additional BMPs planned, and the time required to implement those BMPs will be provided in the event that data from the watershed-wide water quality monitoring program indicate that Water Quality Objectives for Bacterial Indicators are still being exceeded after the CBRP is fully implemented.

(10) A schedule for developing a CBRP needed to comply with the Urban WLA for Bacterial Indicators during the Wet Season (November 1st - March 31st) to achieve compliance by December 31, 2025."

The Permittees have developed the CBRP to achieve compliance with the Dry Season Urban WLA to the MEP by the compliance date of December 31, 2015. Compliance with the WLAs can be measured in several ways:

- Water Quality Objectives are attained at the watershed-wide compliance sites established as part of the implementation of the TMDL (see Section 6). If not attained, then it must be demonstrated that Bacterial Indicators from controllable urban sources are not the cause of non-attainment.

- Compliance with Urban Source WLAs is demonstrated from specific MS4 facilities, e.g., sampling demonstrates that MS4 outfalls or drains are in compliance with the WLA during Dry Weather conditions.
- MS4 facility outfalls are dry, contributing no dry weather flow to downstream waters.

4.2.1.2 MSAR TMDL Task Force

The MSAR TMDL Task Force was formed to implement TMDLs adopted by the Regional Board to address exceedances of the fecal coliform objective established to protect the REC-1 use for waterbodies located within the MSAR. The Task Force is represented by a number of key watershed stakeholders, including the Regional Board. With formal adoption of the MSAR Bacterial Indicator TMDL on August 26, 2005, all responsible parties named in the TMDL began the process to create a formal cost-sharing body, or Task Force, to collaboratively implement a number of requirements defined in the TMDL. Task Force participants include:

- District
- County
- Cities of Corona, Norco and Riverside
- San Bernardino County Flood Control District (SBCFCD) (representing the Cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga and Rialto)
- Cities of Pomona and Claremont (Los Angeles County, pending formal agreement)
- Agricultural Pool and Milk Producers
- U.S. Department of Agriculture, U.S. Forest Service
- Regional Board
- SAWPA

SAWPA serves as administrator of the Task Force. In this role, SAWPA provides all Task Force meeting organization/facilitation, secretarial, clerical and administrative services, management of Task Force funds, annual reports of Task Force assets and expenditures, and hiring of Task Force authorized consultants. All documents and presentation (including CBRP presentations to the Task Force) are posted on SAWPA's project website at: www.sawpa.org/roundtable-MSARTF.html.

4.2.1.3 MSAR TMDL Monitoring Plan

A watershed-wide compliance monitoring program was established in 2007 and will continue as designed during CBRP implementation. A report summarizing sample results from Dry Weather conditions is submitted to the Regional Board by the end of each year. A three-year summary (or Triennial Report) is due to the Regional Board by February 15^{th} every three years since TMDL adoption. The first of these reports was submitted on February 15, 2010. The CBRP provides detailed information regarding monitoring activities, milestones, responsible parties, and reporting scheduling. As part of the CBRP, the watershed-wide compliance monitoring program will continue to be the primary means of evaluating progress toward meeting the WLA for Dry Weather.

4.2.2 Lake Elsinore and Canyon Lake Nutrient and Bacteria TMDL

In 1994, the Regional Board declared that Lake Elsinore was not meeting Water Quality Standards because of nitrogen and phosphorus exceedances. Lake Elsinore was then placed on the 303(d) list because of the Impairment of the following Beneficial Uses: warm water aquatic habitat (WARM), and water contact and non-water contact recreation (REC1 and REC2).

In addition to Lake Elsinore, the Regional Board also deduced that excessive nutrients were causing Impairment of Beneficial Uses in Canyon Lake. Canyon Lake was included on the 303(d) list in 1998. The following Beneficial Uses were identified as Impaired by nutrients: municipal water supply (MUN), warm water aquatic habitat (WARM), and water contact and non-water contact recreation (REC1 and REC2).

Regional Board staff prepared the Lake Elsinore Nutrient TMDL Problem Statement and the Canyon Lake Nutrient TMDL Problem Statement in October 2000 and October 2001, respectively. The reports summarized the Impairments caused by excessive nutrients and provided preliminary recommendations for numeric levels to ensure protection of the Beneficial Uses. After the Problem Statements were completed, numerous studies were conducted by the University of California at Riverside, Regional Board staff, and the Lake Elsinore San Jacinto Watershed Authority to create the Nutrient TMDLs. The Final Nutrient TMDLs were adopted on December 20, 2004.

Currently, the Beneficial Uses of Lake Elsinore are not Impaired by Bacterial Indicators. On October 22, 2007, however, the Regional Board held a meeting to discuss potential development of an amendment to the Basin Plan to include TMDLs for Bacterial Indicators (fecal coliform and *E coli*) for Canyon Lake. By 2010, a TMDL for Bacterial Indicators had been established by the Regional Board.

4.2.2.1 Comprehensive Nutrient Reduction Plan

The need for the development of the CNRP is described in the Findings of the 2010 MS4 Permit:

- Section II.F.23 – Interim compliance (compliance determination prior to the final WLA compliance dates) determination with the WLAs in the TMDLs will be based on the Lake Elsinore and Canyon Lake (LE/CL) Permittees' progress toward implementing the various TMDL Implementation Plan tasks as per the resultant studies and plans approved by the Regional Board. The LE/CL Permittees are required to develop a CNRP designed to achieve compliance with the WLAs by the final compliance date for approval of the Regional Board. In the absence of an approved CNRP, the WLAs specified in the approved Lake Elsinore/Canyon Lake Nutrient TMDL will constitute the final numeric WQBELs.
- Section II.K.4.b.v – The Regional Board recognizes that additional research is needed to determine the most appropriate control mechanism to attain Water Quality Standards for nutrients in these two lakes. The 2010 MS4 Permit provides the LE/CL Permittees the flexibility to meet the WLAs through a variety of techniques. Even though the WLAs for

the Lake Elsinore and Canyon Lake Nutrient TMDLs are expressed as WQBELs, if Water Quality Standards in the Lakes are met through biological or other in-Lake control mechanisms, the LE/CL Permittees' obligation to meet the WLAs is satisfied as the Impairment for which the TMDLs were developed would not exist anymore. The Permittees in the affected watersheds are required to develop a CNRP designed to achieve the WLAs by the compliance dates specified in the TMDL. In the absence of an approved CNRP, the WLAs become the final numeric WQBELs for nutrients.

Based on these Findings, the Regional Board established specific requirements for the CNRP's content. These requirements, found in Section VI.D.2.d in the MS4 Permit, need to achieve compliance with TMDL WLAs as per the TMDL Implementation Plans. The LE/CL Permittees have submitted a CNRP in July 2012, describing, in detail, the specific actions that have been taken or will be taken to achieve compliance with the urban WLA by December 31, 2020.

Section VI.D.2.d. of the MS4 Permit specifies that the CNRP must include the following:

- Evaluation of the effectiveness of BMPs and other control actions implemented. This evaluation shall include the following:
    - The specific ordinance(s) adopted or proposed for adoption to reduce the concentration of nutrients in urban sources.
    - The specific BMPs implemented to reduce the concentration of urban nutrient sources and the water quality improvements expected to result from these BMPs.
    - The specific inspection criteria used to identify and manage the urban sources most likely causing exceedances of Water Quality Objectives for nutrients.
    - The specific regional treatment facilities and the locations where such facilities will be built to reduce the concentration of nutrients discharged from urban sources and the expected water quality improvements to result when the facilities are complete.
- The proposed method for evaluating progress toward compliance with the nutrient WLA for Urban Runoff. The progress evaluation includes:
    - The scientific and technical documentation used to conclude that the CNRP is achieving compliance with the urban WLAs.
    - A detailed schedule for implementing the CNRP. The schedule must identify discrete milestones, decision points, and alternative analyses necessary to assess satisfactory progress toward meeting the urban WLAs by December 31, 2020. The schedule must also indicate which agency or agencies are responsible for meeting each milestone.
    - The specific metric(s) that will be established to demonstrate the effectiveness of the CNRP and acceptable progress toward meeting the urban WLAs for nutrients by December 31, 2020.
    - The DAMP, WQMP and LIPs shall be revised consistent with the CNRP no more than 180 days after the CNRP is approved by the Regional Board.
    - Detailed descriptions of any additional BMPs planned, including BMP implementation schedules, in the event that data from the watershed-wide water

quality monitoring program indicates Water Quality Objectives for nutrients are still being exceeded after the CNRP is fully implemented.

The CNRP is applied to the Permittees in the following jurisdictions: County and the Cities of Beaumont, Canyon Lake, Hemet, Menifee, Moreno Valley, Murrieta, Perris, Riverside, San Jacinto, and Wildomar. The Permittees have developed a CNRP that is designed to achieve compliance with the Urban WLAs by the compliance date of December 31, 2020. Per 2010 MS4 Permit Section VI.D.2.k, compliance with the Urban WLAs can be measured using one of the following two methods:

- Directly, using relevant monitoring data and/or approved modeling procedures to estimate actual nitrogen and phosphorus loads being discharged to the lakes, or,
- Indirectly, using water quality monitoring data and other biological metrics, approved by the Regional Board, to show Water Quality Standards are being consistently attained (as measured by the response targets identified in the Nutrient TMDLs).

Compliance with the Urban WLAs will require implementation of nutrient mitigation activities in both the San Jacinto Watershed and the lakes. Accordingly, the CNRP is built around a framework that includes both watershed-based BMPs and in-lake remediation activities. Coupled with this framework is a monitoring program to evaluate progress toward compliance with Urban WLAs and an adaptive implementation program to provide the opportunity to make adjustments to the CNRP, where deemed necessary to achieve the Urban WLAs.

4.2.2.2 Lake Elsinore and San Jacinto Watersheds Authority

The Lake Elsinore and San Jacinto Watersheds Authority (LESJWA) is a joint powers authority charged with improving water quality and protecting wildlife habitats, primarily in Lake Elsinore, but also in Canyon Lake and the surrounding watersheds. LESJWA was formed in April 2000 after California voters passed Proposition 13, a bond measure to fund water projects throughout the state. LESJWA is made up of representatives from SAWPA, the Elsinore Valley Municipal Water District, the City of Lake Elsinore, the City of Canyon Lake, and the County. LESJWA was formed to coordinate solutions to water quality problems to protect local water supplies. LESJWA brings together member agencies and stakeholders to identify comprehensive solutions to water and habitat problems that no single agency could address.

LESJWA harnesses the local knowledge of past clean-up efforts in Lake Elsinore and Canyon Lake and the surrounding watersheds to develop a comprehensive watershed cleanup plan. LESJWA also has created a Technical Advisory Committee to provide expert research and to ensure that each recommended cleanup project is based on current scientific data. In 2006, the TMDL stakeholders formally organized into a funded TMDL Task Force.

4.2.2.3 Monitoring and Implementation Plan

CNRP implementation includes inspection criteria used to identify and manage urban sources which most likely cause the exceedances of urban WLAs. The following key implementation activities are taking place:

- Watershed-based BMPs to reduce nutrient loading in Urban Runoff, primarily Wet Weather flows.
- In-lake remediation projects to mitigate nutrient impacts from in-lake sediments. Separate remediation projects are included for Lake Elsinore and Canyon Lake.
- Watershed and in-lake monitoring activities to assess compliance with TMDL WLAs.
- Optional special studies to develop data to support BMP implementation or provide the basis for revisions to the TMDL.
- Providing a summary in the MS4 program's Annual Report of all relevant data from water quality monitoring programs, as well as an evaluation of compliance with the Nutrient TMDLs by reporting the effectiveness of the BMPs implemented in the watershed.

Specific BMPs being evaluated, implemented, and tested within the San Jacinto Watershed and within the lake are discussed in the CNRP for Lake Elsinore and Canyon Lake Report. Monitoring activities have been implemented in phases since adoption of the TMDL. The Permittees, as participants in the Task Force, prepared the Lake Elsinore and Canyon Lake Nutrient TMDL Monitoring Plan in February 2006 and have conducted water quality monitoring on Lake Elsinore and Canyon Lake subsequent to the Regional Board's approval of the Monitoring Plan in March 2006. According to the CNRP, this TMDL Monitoring Plan includes three components:

- Lake Elsinore – Provide data to evaluate compliance with interim and final nitrogen, phosphorus, chlorophyll a, and dissolved oxygen numeric targets.
- Canyon Lake – Provide data to evaluate compliance with interim and final nitrogen, phosphorus, chlorophyll a, and dissolved oxygen numeric targets.
- San Jacinto River Watershed – Provide data to evaluate compliance with interim and/or final nitrogen and phosphorus TMDL WLAs and Load Allocations.

The original monitoring program included a three-phase approach. Phase 1, referred to as the Intensive Lake Elsinore and Canyon Lake Study, focused on an evaluation of the in-lake processes. Phase 2, referred to as the Intensive Watershed Study, focused on data analyses that supported TMDL compliance and provided data to understand external nutrient source contributions from the watershed. Phase 3, known as Compliance Monitoring, focuses on monitoring activities to take place subsequent to Phases 1 and 2 in order to assess in-lake and watershed water quality levels. Detailed Phase 1 monitoring activities can be found in Table 2-1 of the CNRP.

In December 2010, the Task Force, in consultation with the Regional Board, revised the Phase 1 monitoring program for Lake Elsinore and Canyon Lake. The revised Phase 1 program decreases the number of sample locations in the lakes. The watershed monitoring program was not revised.

The CNRP is a dynamic document to allow for the inclusion of updates regarding changes due to BMP effectiveness, technology innovations, reporting criteria, or changes in the San Jacinto

Watershed. Through Fiscal Year 2014-2015, the Permittees plan to continue the existing Phase 1 monitoring program and eliminate existing in-lake monitoring programs through the same period. Eliminating in-lake monitoring programs ensures that resources are dedicated to facilitating and constructing in-lake BMPs. The Permittees will propose a revised comprehensive watershed and in-lake monitoring program by December 31, 2014, based on the final configuration of the in-lake BMPs for both Lake Elsinore and Canyon Lake.

4.3 Regional BMP Retrofit Opportunities

The 2010 MS4 Permit requires the development of recommendations for specific retrofit studies to address TMDL Implementation Plans, Hydromodification from Urban Runoff, and LID implementation. Currently a retrofit study has been developed which identifies potential opportunities for both large-scale, watershed-wide BMP retrofits as well as sub-watershed scale BMP retrofits. Permittees are currently evaluating the effectiveness and ease of implementation of retrofit BMPs identified in this study. The study will be updated based on the evaluation. The retrofit BMPs identified in this study are incorporated into the WAP. The results of this study will assist the Permittees in prioritizing site specific retrofit BMPs when the water quality improvement needs of the sub-watershed and watershed deemed them necessary. Evaluation of the water quality improvement needs will consider current TMDL plans (such as the CBRP and CNRP), Hydromodification management, LID offset programs, specific watershed needs and conditions, constructability, and feasibility.

4.4 Hydromodification Assessment

The District continues to protect people, property and the watershed from damage and to conserve, reclaim and save waters for beneficial use. To achieve these goals, the District continues to prioritize flood risk reduction projects, mitigate erosion and seek out opportunities for stream restoration and non structural floodplain management. Additionally, Section XII.B.4. of the MS4 Permit requires the Permittees to develop a delineation of existing non-armored or soft-armored stream channels within the SAR which are vulnerable to Hydromodification from New Development and Significant Redevelopment projects. Vulnerability to Hydromodification criteria is discussed in the Hydromodification Susceptibility Documentation and Mapping Report provided in Appendix A. Within two years of completion of this delineation, Section XII.B.5 of the MS4 Permit requires the Permittees to develop a Hydromodification Management Plan (HMP). The HMP will describe how the delineation will be used on a per-project, sub-watershed, and watershed basis to manage Hydromodification caused by Urban Runoff. The HMP will prioritize projects based on drainage feature/susceptibility/risk assessments and opportunities for restoration. Currently, potential Hydromodification impacts are addressed within the Project-Specific WQMPs. Permittees are required to address Hydromodification concerns within their WQMPs as well as update their project approval requirements to incorporate updated Hydromodification standards per the 2010 MS4 Permit.

4.4.1 Channel Assessment and Classification

As part of the WAP, the delineation discussed in Section 4.4 must be incorporated into the SWCT[2]. Delineation of channels and streams that are engineered, hardened, and maintained that are vulnerable to geomorphology changes due to Hydromodification within the SAR was completed and broken into five classifications:

- Engineered, Fully Hardened, and Maintained (EFHM);
- Engineered, Partially Hardened, and Maintained (EPHM);
- Engineered, Earthen, and Maintained (EEM);
- Not Engineered and Earthen (NEE); and
- Natural (NAT).

A desktop study was conducted categorizing each individual stream channel segment into one of the above groups. The desktop study included an examination of as-built plans and aerial photography. The segments that were in question were field verified. Field verification included visiting an accessible location along the segment of stream channel. Photographs and notes were taken in regards to the stream channel segment condition and armoring. Any stream channel facilities that could not be accessed and/or were still in question were discussed and verified with the Permittees with jurisdictional responsibility for the facility.

In Section 3 of the Hydromodification Susceptibility Documentation and Mapping Report, the definition, as well as the susceptibility, for each of the stream channel classifications is discussed in detail. Each of the five stream channels were designated into two categories as shown below:

Not Susceptible:

- EFHM – The risk for adverse impacts caused by Hydromodification is insignificant due to the armoring of the stream channel segment and the engineered design which would prevent erosion and degradation of the channel.
- EPHM - The risk for adverse impacts caused by Hydromodification is very low due to the partial armoring of the stream channel segment and the engineered design which would significantly lower the risk of erosion and degradation of the channel.
- EEM - The risk for adverse impacts caused by Hydromodification is low due to the engineered design of the stream channel segment which would lower the risk of erosion and degradation of the channel.

Potentially Susceptible:

- NEE – It cannot be verified that the stream channel segment could handle the changes in runoff volume and duration associated with New Development or Significant Redevelopment without degradation. The risk for adverse impacts caused by Hydromodification is potentially significant. Future technical studies could determine the level of risk of Hydromodification in individual stream channel segments.
- NAT – The findings of the MS4 Permit indicate that these stream channel segments are vulnerable to Hydromodification resulting from runoff from New Development or Significant Redevelopment. The risk for adverse impacts caused by Hydromodification is potentially significant. The level of risk may be determined through future technical studies.

Figures 2 and 3 are the Existing Stream Channel Delineation Map and Stream Channel Susceptibility Map, respectively. These were developed as part of the 2010 MS4 Permit requirements for the WAP and are included in the SWCT[2].

Figure 3: Existing Stream Channel Delineation Map

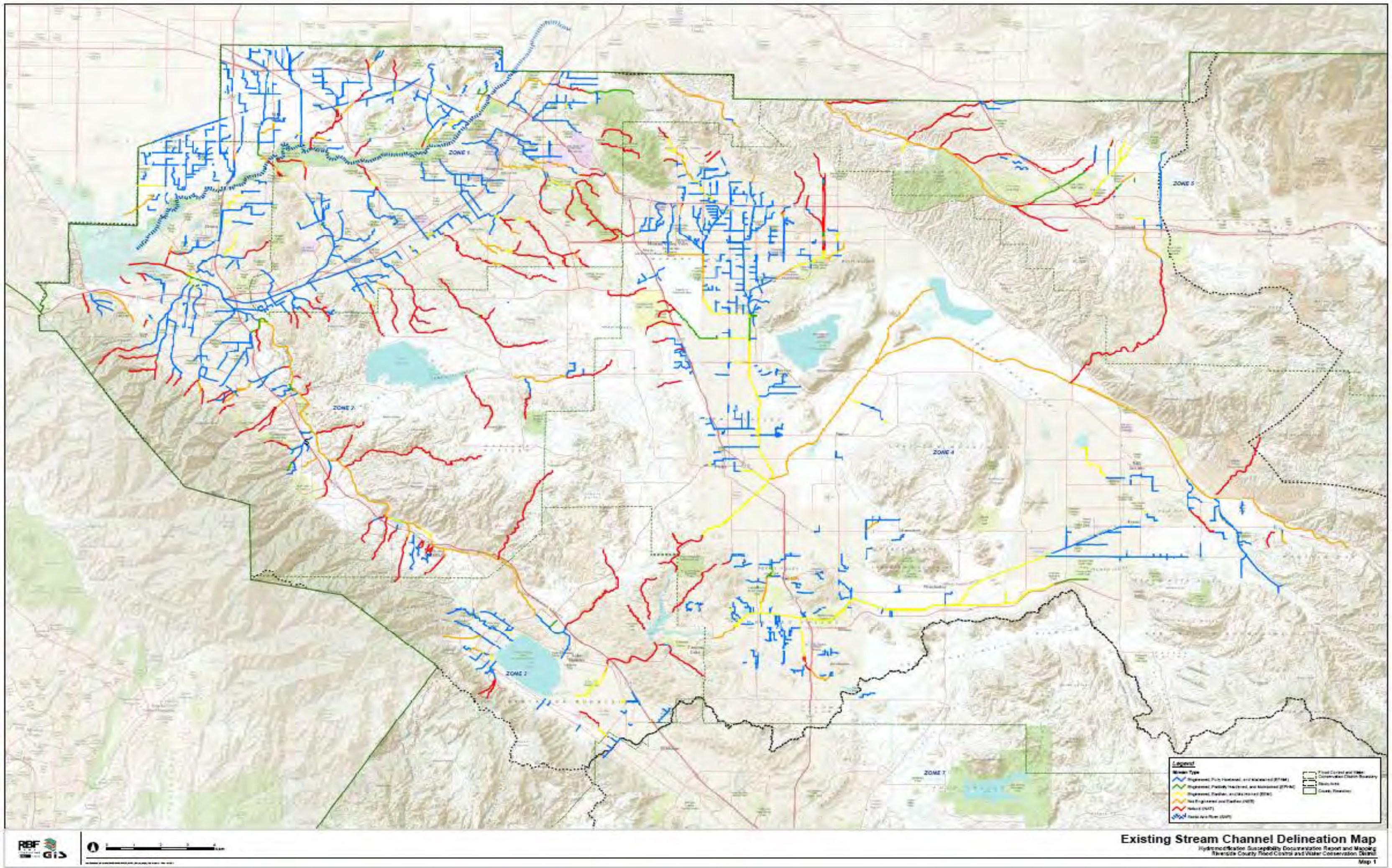
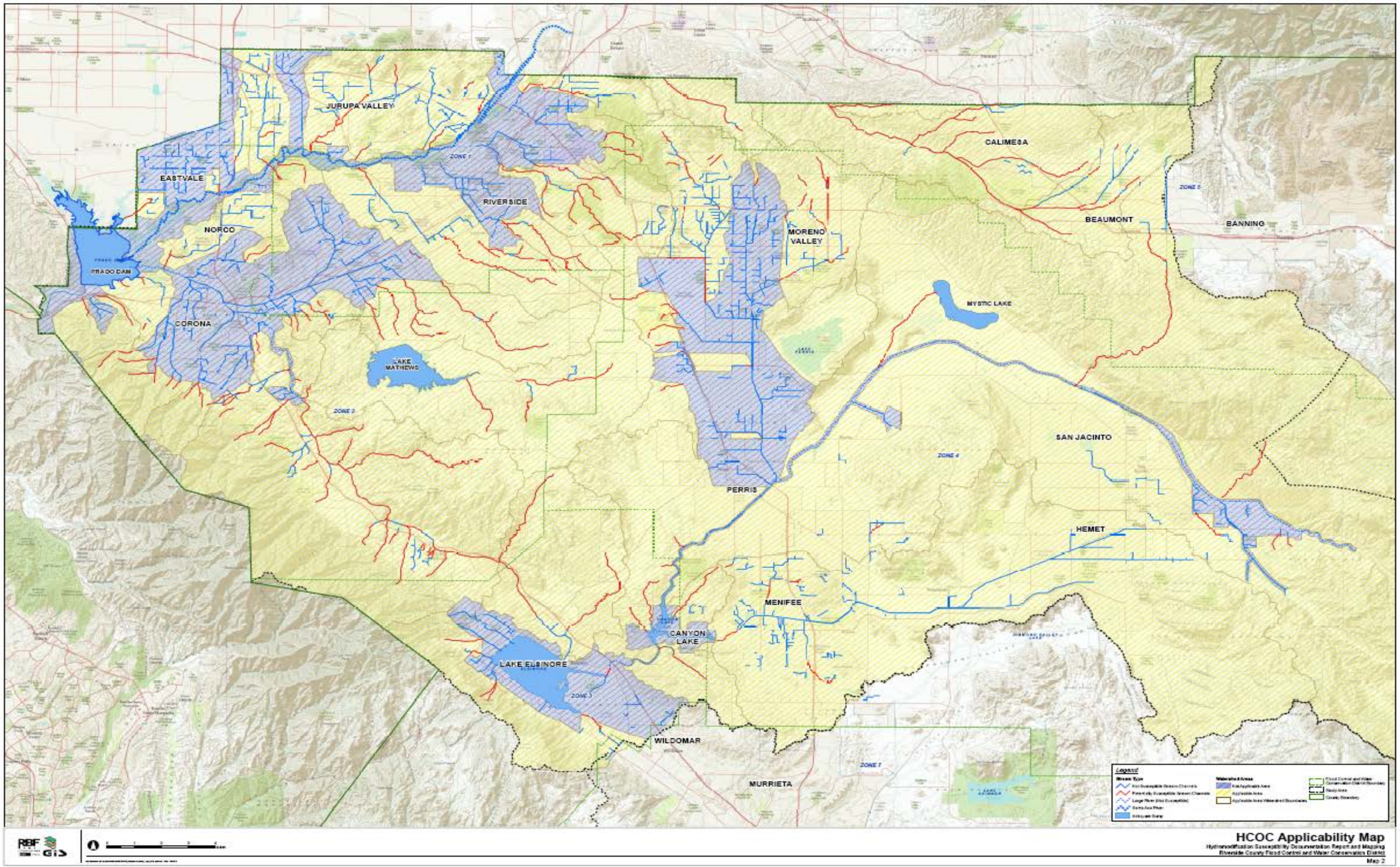


Figure 4: Hydromodification Susceptibility Map



4.4.2 HMP Development

The HMP will identify potential causes of identified stream degradation, including a consideration of sediment yield and balance on a watershed or sub-watershed basis. The HMP will evaluate Hydromodification impacts for the drainage channels deemed most susceptible to degradation. The HMP will prioritize actions based on drainage feature/susceptibility/risk assessments and opportunities for restoration. Supporting studies for cumulative Hydromodification impacts will also be included for additional background and reference.

A Hydromodification Monitoring Plan will also be developed in order to identify monitoring sites, a methodology for assessment of Hydromodification potential, and required follow-up actions to address Hydromodification based on monitoring results. Where applicable, monitoring sites may be used to evaluate the effectiveness of BMPs in preventing or reducing impacts from Hydromodification.

The HMP and the Hydromodification Monitoring Plan will be based on the existing science and efforts that have already been developed in other areas of Southern California. The San Diego Permittees expended a significant amount of resources in development of their HMP. San Bernardino County and Orange County are currently developing their HMP, and SCCWRP has developed numerous technical papers related to Hydromodification. The geographic differences in Riverside, San Diego, San Bernardino, and Orange County are relatively insignificant; therefore, much of the information that has been developed with these programs can be used in the development of the Riverside HMP. The HMP will use the information that has already been developed so that the limited resources of the program can be best allocated and used for other improvements to water quality.

Both the HMP and the Hydromodification Monitoring Plan will use the information that has been developed in the delineation and mapping effort, which provides a significant amount of baseline information. This section will be updated once the HMP has been developed and approved.

The coordinating agencies that will implement the HMP are the Permittees, project owners, and the District.

4.4.3 Hydromodification Monitoring Plan

The Hydromodification Monitoring Plan will be as straightforward as possible in answering the key questions about Hydromodification. Consistent with the draft Hydromodification Monitoring Program guidance document currently in development by SCCWRP, the logical approach for Hydromodification monitoring will be annual geomorphic assessment of key "indicator" streams, looking for changes associated with Hydromodification over time. A sample number of streams will be monitored that represent various sized watersheds in representative locations.

5 WAP Coordination and Implementation

The WAP will assist the Permittees, water agencies, and the Chino Basin Water Master, as well as the development and environmental communities, to integrate water quality and water supply policies into current and future development plans within the SAR. These policies aim to encourage the capture and use of Urban Runoff to reduce potable water demand and encourage infiltration of Urban Runoff to recharge groundwater basins. The policies and goals covered in the WAP meet requirements specified in the 2010 MS4 Permit.

The WAP is a reference document to assist with the collaboration, and planning toward an integrated watershed management approach within the SAR. The WAP was developed through a collaborative process with the Permittees, and other watershed stakeholders. This section provides a framework for ongoing coordination with the Permittees and Orange and Riverside Counties to establish consistency in the tools for implementation of watershed protection principles throughout the Santa Ana River Watershed. This consistency will help achieve watershed protection principles in each of these jurisdictions. In order to track, link, and readily identify the important aspects within the Santa Ana River Watershed, the SWCT^2 was created. The SWCT^2 is an efficient tool to manage and track data to effectively implement the WAP. The use of the WAP and SWCT^2 is required in the 2010 MS4 Permit to be integrated with the DAMP, WQMP, and TMDLs.

Linking all of the important components of the WAP will create an efficient and effective strategy in order to meet the 2010 MS4 Permit requirements. Integrating the efforts discussed in Section 3 into the WAP and SWCT^2 will provide beneficial synergies for the entire Santa Ana River Watershed. Understanding water supply and demand on a regional basis will help in addressing the water supply issue by increasing public awareness and responsibility. One effective method for helping to resolve water supply is through the WAP and the online SWCT^2, which enables the Permittees to go to the Regional Board and demonstrate the water quality benefit each improvement may provide. Linking the water resource management plans and programs in the Santa Ana River Watershed may facilitate a more efficient approach to coordinate management of the natural water resources in the Santa Ana River Watershed.

5.1 WAP Watershed Geodatabase

In 2012, the SWCT^2 was created for the SAR. The SWCT^2 incorporates stormwater and groundwater related information, topography, parcel and right-of-way information, soils, Federal Emergency Management Agency (FEMA) flood data, as well as habitat and species information for the entire County. The SWCT^2 locates the flood control facilities including basins, levees, spreading grounds, dams, and other related facilities. The ultimate goal is to be able to have future project proponents identify the MS4 facility the project discharges to, where the facility drains to, the environmental constraints, and the sites downstream for potential restoration and rehabilitation. The online map will eventually be accessible by the public with limited access depending on the role the person has in the project. The online SWCT^2 will also provide template functionality for WQMPs, as well as important requirements regarding the DAMP, LID, and TMDLs. Additionally, regional BMP retrofit studies, plans, and improvements along with other planning tools, such as RCA protection plans, Prado Basin activities, and groundwater related information will also be incorporated into the SWCT^2.

5.1.1 Watershed Action Plan and Watershed Geodatabase Integration

The WAP includes development and implementation of the SWCT^2. This web-based interactive planning tool will assist applicants and agencies in planning development that meets the requirements of the 2010 MS4 Permit through the integrated use of both LID strategies and regional planning. The SWCT^2 will be useful not only for New Development, but for identifying opportunities for infill development and retrofit of existing hardscapes that will provide Urban Runoff capture and related water quality, flood control, and environmental benefits. The integration of the WAP and the SWCT^2 will be developed in coordination with groundwater managers, Permittees, and the Chino Basin Water Master, so that the water supply and associated environmental and public benefits are recognized and incorporated into region-wide planning efforts.

The principles of the integration of the SWCT^2 into the WAP will build upon and leverage a) data and online platforms compiled as part of mapping efforts related to HCOC (stream erosion and Hydromodification), b) studies conducted by the Chino Basin Watermaster that highlight benefits and opportunities associated with infiltration of stormwater (water quality and water resources), c) GIS-based tools and technologies developed by stormwater agencies, consulting professionals, and environmental special interest organizations, d) land use data developed by planning agencies, e) monitoring data, and f) other potential data sources.

The SWCT^2 is intended to aid in integration of the WAP with other stormwater efforts and processes within the SAR, such as the ones discussed in Section 3. An example of this integration will include the ability to use the information in the SWCT^2 to provide significant input to aid in the development of a Project-Specific WQMP. A user who selects a site can be presented with relevant input and supporting reference materials regarding the suitability for onsite infiltration, LID opportunities, relevant and preferred BMPs, identification of downstream stream channel Hydromodification susceptibility issues, and retrofit and restoration opportunities. By using the data maintained in the SWCT^2, the user can be presented with a template of information to aid in the development of a consistent and complete WQMP, making for streamlined review and approval processes and furthering the goals of the overall watershed on a project-by-project basis.

Another integral part of the WAP involves SAWPA. SAWPA has implemented an IRWMP to help restore a sustainable Santa Ana River Watershed. The main goal of this plan is to have a drought-proofed, salt-balanced Watershed that supports economic and environmental vitality in the year 2030. The IRWMP unites the Santa Ana River Watershed and coordinates expertise and resources to accomplish a sustainable environment. The plan addresses all water-related problems and capitalizes on SAWPA member agencies' successful reputation in watershed-wide planning and problem solving. It envisions a single unified submittal to the State, engenders a collaborative approach to solving problems, allows influence on projects over which the Permittees have no authority, and addresses systematic and long-term needs. The IRWMP is another integral component of the WAP and needs to be incorporated into the Santa Ana River Watershed improvement efforts. Updates and planned activities will be included in the online SWCT^2 so the Permittees can monitor and include the ongoing activities of the master plan.

5.1.2 Development Summary

A major component of the final work product under the WAP includes the development, testing, and implementation of the SWCT^2 as the primary interactive reference tool. The SWCT^2 is designed in such a manner as to allow for continuous live access to the aforementioned data, reports and studies, and data to support other regulatory processes such as WQMP development and approvals, CWA Section 401 Water Quality Standards Certifications (401 Certifications), and LID BMP feasibility evaluations over the internet. The goal is to provide the information in a single, centralized, and maintained location where stakeholders, including developers, engineers, plan checkers, and regulators, can easily access the information. To accomplish this task, the Permittees commissioned the development of an online mapping and data access application using current GIS technology. Furthermore, stakeholder meetings, individual contact, research, and a review of available data and supporting reports and studies were completed to populate the SWCT^2. Additional information needed to complete the data requirements for the WAP includes:

- Engineering evaluation of local and regional drainage areas;
- Delineation of existing unarmored or soft-armored drainages that are vulnerable to geomorphological changes due to Hydromodification and those channels and streams that are EHM;
- Hydromodification susceptibility classification of many significant non-EHM facilities;
- Identification of MS4 facilities which pose channel restoration opportunities;
- Identification of sites that pose opportunities for installation of retrofit BMPs;
- Project-Specific WQMP information;
- Groundwater well locations, recharge areas, plumes, contours, basins and aquifers; and
- Reclaimed water systems and LID projects.

Development of the SWCT^2 began in 2012 and will continue to be developed throughout the next year. The database is a living resource and will continue to be maintained and updated on an as-needed basis throughout its existence. The Permittees, resource conservation districts, water and utility agencies, State and Federal agencies, non-governmental agencies, and developers participated in the development of the SWCT^2. They provided comments and input throughout development of the application. A draft version of the application was made available online in 2012, and it has been incrementally updated as additional data and functionality became available. The SWCT^2 is and will remain a work in progress, both from a data standpoint and in its functionality. A data maintenance plan is being finalized. Further enhancements are also anticipated through the implementation of the MS4 Permit requirements to satisfy the additional needs and requests of the Permittees.

5.1.3 Technology

The development of the SWCT^2 has proceeded with the goal of providing a useful and comprehensive reference tool that is easy to use. Design guidelines were employed which should allow users to access most of the site's functionality without training. Further, since the

$SWCT^2$ is browser-based, no additional software needs to be purchased or installed in order to use the application. (The Microsoft Silverlight browser plug-in is required. Silverlight is free and usually takes less than a minute to download and install). In addition, a comprehensive help document and quick start guide are included in the site. However, in order to access some of the more advanced functions and to aid the user in understanding the content of the reference data and supporting studies, some additional training and outreach is being contemplated.

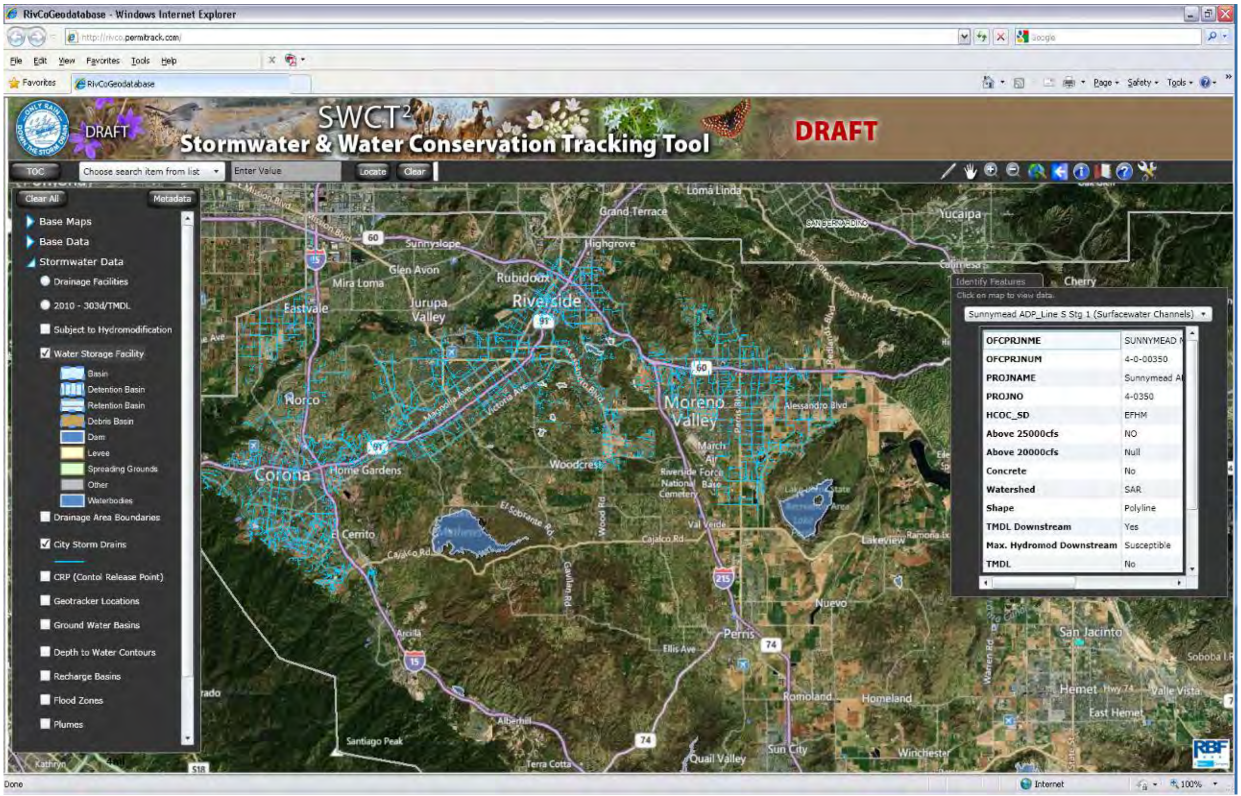
The $SWCT^2$ depends on state of the art GIS and Internet technologies. The $SWCT^2$ is powered by two computer servers purchased and maintained by RBF Consulting. These servers include a 64 bit, quad core data server running Microsoft SQL Server as the Relational Database Management System (RDBMS). The geographic components of this data server are supported using ArcSDE version 10.0 by ESRI. The second server is the application server that is connected to the Internet and serves up both the mapping and web pages. The mapping on this server is supported by ArcGIS Server version 10.0 by ESRI. The mapping application is also supported by the Microsoft Silverlight version 4 browser plug-in, which is required to view the media rich content of the site including the mapping. The $SWCT^2$ has been developed and optimized for the Microsoft Internet Explorer version 7 browser; however, it will operate to varying degrees in other browser environments.

The two servers are currently hosted at a server colocation center, which provides a secure environment, redundant high-speed Internet connectivity, and backup power, as well as regular full and incremental data backups. This internet connectivity will ensure that the $SWCT^2$ is available to watershed stakeholders via the Internet.

5.1.3.1 Functionality

The $SWCT^2$ is accessible through the domain address http://rivco.permitrack.com/ (see Figure 6).

Figure 5: SWCT² Mapping Site



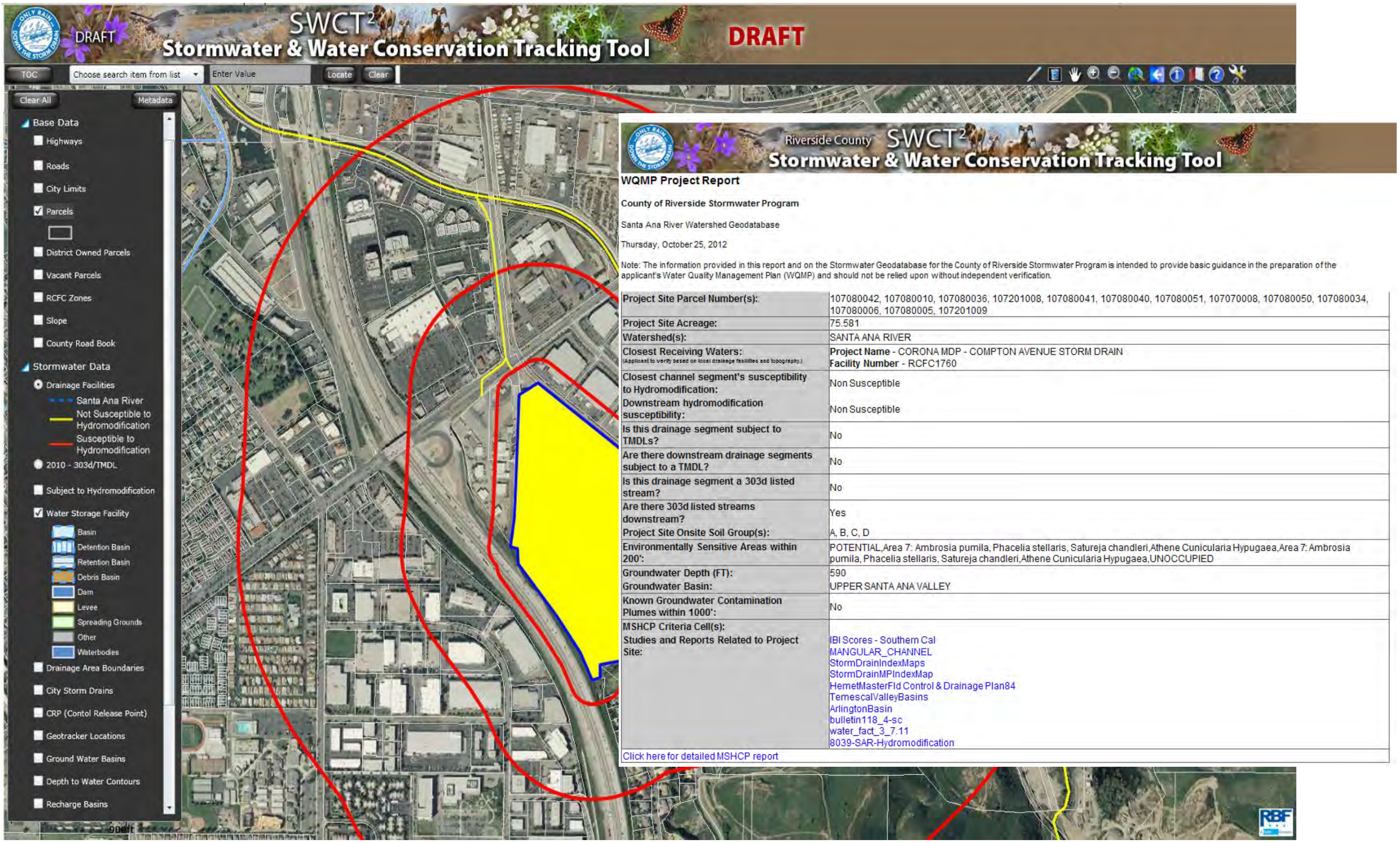
The mapping site (Figure 5) provides basic functionality for opening a map and moving the field of view around the SAR. Currently, while under review by the Regional Board and other stakeholders, the site requires a password for access. One password is available at this time for general access. The password will be provided upon request. As the application develops, multiple passwords will be provided to focus the application and data organization for the type of user logging in.

The SWCT² has the following functionality, capabilities, and layers which are implemented in the Silverlight environment.

- Navigation tools: Pan, Zoom In, Zoom Out, Zoom Extents, Back Extents, Identity, Measure
- Searches: Find City, Find Channel by Project Name, Find Road Book Page
- Reports: Find and View Reports
- Base Map Layers: ESRI World Topographic Map (http://goto.arcgisonline.com/maps/World_Topo_Map), ESRI World Street Map (http://goto.arcgisonline.com/maps/World_Street_Map), ESRI World Imagery (http://goto.arcgisonline.com/maps/World_Imagery), Highways, Roads, Parcels, Vacant Parcels, Flood Control District Owned Parcels, Counties, City Limits, County Road Book, Slope

- Stormwater Data: Drainage Facilities, 2010-303d/TMDL, Subject to Hydromodification Areas, Water Storage Facilities, Drainage Area Boundaries, Permittee MS4 Facilities, Control Release Points, Geotracker Locations, Depth to Groundwater Contours, Groundwater Basins, Recharge Basins, Flood Zones, Plumes, Soils, As-Builts
- Habitat/Species Data: Amphibians, Plants, Birds, Fish, Mammals
- Other Basic Functionality: Map Print, Map Legend, Image disclaimer, Help page, Metadata for each layer
- Developer Tool: Allows a project proponent to select an area or parcel to find important information related to the project and the surrounding area including, but not limited to 303d and TMDL information, Soil Types, ESAs, groundwater information, stream channel susceptibility to Hydromodification, Receiving Waters, MS4 facilities, parcel numbers, and other related studies such as WQMPs and MSHCP reports. Figure 7 shows an example of the Developer Tool

Figure 6: SWCT^2 Developer Tool



WQMP Project Report

County of Riverside Stormwater Program

Santa Ana River Watershed Geodatabase

Thursday, October 25, 2012

Note: The information provided in this report and on the Stormwater Geodatabase for the County of Riverside Stormwater Program is intended to provide basic guidance in the preparation of the applicant's Water Quality Management Plan (WQMP) and should not be relied upon without independent verification.

Project Site Parcel Number(s):	107080042, 107080010, 107080036, 107201008, 107080041, 107080040, 107080051, 107070008, 107080050, 107080034, 107080006, 107080005, 107201009
Project Site Acreage:	75.581
Watershed(s):	SANTA ANA RIVER
Closest Receiving Waters: (Applicant to verify based on local drainage facilities and topography.)	**Project Name** - CORONA MDP - COMPTON AVENUE STORM DRAIN **Facility Number** - RCFC1760
Closest channel segment's susceptibility to Hydromodification:	Non Susceptible
Downstream hydromodification susceptibility:	Non Susceptible
Is this drainage segment subject to TMDLs?	No
Are there downstream drainage segments subject to a TMDL?	No
Is this drainage segment a 303d listed stream?	No
Are there 303d listed streams downstream?	Yes
Project Site Onsite Soil Group(s):	A, B, C, D
Environmentally Sensitive Areas within 200':	POTENTIAL,Area 7: Ambrosia pumila, Phacelia stellaris, Satureja chandleri,Athene Cunicularia Hypugaea,Area 7: Ambrosia pumila, Phacelia stellaris, Satureja chandleri,Athene Cunicularia Hypugaea,UNOCCUPIED
Groundwater Depth (FT):	590
Groundwater Basin:	UPPER SANTA ANA VALLEY
Known Groundwater Contamination Plumes within 1000':	No
MSHCP Criteria Cell(s):	
Studies and Reports Related to Project Site:	IBI Scores - Southern Cal MANGULAR_CHANNEL StormDrainIndexMaps StormDrainMPIndexMap HemetMasterFld Control & Drainage Plan84 TemescalValleyBasins ArlingtonBasin bulletin118_4-sc water_fact_3_7.11 8039-SAR-Hydromodification

Click here for detailed MSHCP report

Main stormwater reference layers included in the site are listed below. A complete list of data included in the SWCT^2 is presented in the data maintenance section, and the data dictionary is provided in Appendix C:

1. MS4 facilities including channels and basins
2. Stream segments susceptible to Hydromodification
3. Local and regional drainage boundaries
4. Controlled release points
5. Sensitive species and Protected Habitat areas, California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service
6. Potential stormwater recharge areas and/or reservoirs
7. Groundwater basins including groundwater surface contours
8. Groundwater contamination plumes
9. NRCS soil classifications
10. 303(d) listed waterbodies, addressed TMDLs, and associated Pollutants

Additional reference material is provided in the form of links to supporting documentation. These mainly include:

1. Construction and as-built drawing documents for Permittee MS4 facilities;
2. Relevant Stormwater and Groundwater Documents and Studies collected to support the WAP; and
3. System-wide Retrofit Opportunity Exhibits and Studies linked to individual identified sites. .

5.1.4 Maintenance and Enhancement Schedule

Over the course of the development of the SWCT^2, the Permittees collected or commissioned the creation of data layers that are pertinent to the WAP. One of the main objectives of the SWCT^2 is to develop and implement a plan to keep the reference material provided on the SWCT^2 web site up to date. This data maintenance plan will assist with identifying data layers that are included in the SWCT^2, the source of the data, the party responsible for data maintenance, the frequency of maintenance, and the last time the data layer was updated. Further, since many of these layers are maintained simultaneously by multiple agencies, this data maintenance plan will identify a specific source and maintenance responsibility to determine best maintenance practices and eliminate duplication of effort. The data maintenance plan indicates that the District will evaluate and update as necessary each of the data layers with a minimum frequency of semiannually unless a specific data set has a known longer update cycle.

In collecting the required data layers, the consultant coordinated the data collection effort through the District to collect various data layers relevant to the project at hand. The consultant obtained much of the needed base layers to assist with the project over a period of time from project initiation in early 2012. The consultant evaluated the data in the second and third quarters of 2012 to organize, update and when necessary clean up data to be suitable to support the WAP. The District worked closely with the consultant's GIS Department to provide the necessary support for the collection of data layers that would support the project. During the data collection phase of the project, data was noted, inventoried, and tracked into a data dictionary to document what was collected and to track what datasets were the most current data available.

Throughout the development of the SWCT^2 the consultant contacted agencies and water districts to collect data needed to support the project. The District provided the bulk of applicable data and is the prime source for downloads and updates as needed. Through the District, the consultant also made contact with each of the Permittees throughout Riverside County including agencies throughout the Whitewater Region, Santa Margarita Region, and the SAR. The Permittees provided data as available for their jurisdiction and as appropriate to the needs of the project. Groundwater agencies such as the Chino Basin Watermaster and the Western and Eastern Municipal Water Districts were among some of the other agencies contacted to obtain the relevant information, although the Municipal Water Districts have not yet responded. Overall, the requests and collection of data was a large cooperative effort and most involved parties were responsive.

The data included in the SWCT^2 consists of base layers such as parcels, street centerlines, Permittee boundaries, roads and District parcels all of which come from the County. The County also provided species and habitat data sourced from the County approved General Plan, the California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. The District also provided their maintained drainage facilities and water storage facilities. The Permittees and water districts provided layers such as groundwater contours, plumes, storm drain systems, water utilities, and land use. Information from NRCS soils, aquifer and 303d listed waterbodies were downloaded from applicable resource agencies.

A strategic method was implemented for review and data organization to ensure data quality. The data layers were thoroughly examined and compared to existing layers to verify changes and location. Once the data was reviewed, the data was recorded stating the provider, date modified, date to be updated, and file type. A structured file system was created for the data received, organized by data type, and the source of the data. This assisted in identifying what was needed to develop the SWCT^2. The data was also used to perform studies to support the WAP including stream channel assessment, hydromodification susceptibility, and causes of stream degradation. The data layers presented on the site and maintained in support of the WAP are shown in Table 1.

Table 1: WAP Data Layers

Feature Class	Source	Responsible Party	Proposed Frequency of Updates	Date Last Updated
Parcels	TMLA	District	Quarterly	7/1/12
District Parcels	District	District	Quarterly	Unknown
District Zones	District	District	As needed	Unknown
Reports	RBF	District	As needed	9/1/12

Feature Class	Source	Responsible Party	Proposed Frequency of Updates	Date Last Updated
Transportation Road Book	RCTD	District	Annually	Unknown
Vacant	TLMA	District	Quarterly	Unknown
Amphibian Survey	TLMA	District	Quarterly	7/1/12
Burrowing Owl Survey	TLMA	District	Quarterly	7/1/12
Centerlines	TLMA	District	Quarterly	7/1/12
Cities	TLMA	District	Quarterly	7/1/12
Counties	TLMA	District	Quarterly	7/1/12
Criteria Area Species Survey	TLMA	District	Quarterly	7/1/12
Criteria Cells	RCA	District	Quarterly	7/1/12
Desert Tortoise Areas	TLMA	District	Quarterly	7/1/12
Highways	TLMA	District	Quarterly	7/1/12
Mammals Survey	TLMA	District	Quarterly	7/1/12
MSHCP Boundary	TLMA	District	Quarterly	7/1/12
Narrow Endemic Plants Survey	TLMA	District	Quarterly	7/1/12
Steven's Kangaroo Rat Habitats	TLMA	District	Quarterly	7/1/12
Waterbodies	TLMA	District	Quarterly	7/1/12
Water Districts	TLMA	District	Quarterly	7/1/12
Watersheds	TLMA	District	Quarterly	7/1/12
Depth to Water Contours	SAWPA/ CBW	District	Annually	SAWPA 1980 - 2006, Chino Basin Spring 2010
FLOOD	District, FEMA	District	Quarterly	Unknown
FEMA Flood Zones	FEMA	District	When updates are Available	8/1/08
Geotracker Locations	WRCB	District	Quarterly	10/1/2012
Groundwater Basins	CBW, Corona	District	Annually	Unknown
303d Lines	WRCB	District	Bi-Yearly or when Approved updates are available	4/1/2010
Plumes	SAWPA	District	Bi-Yearly or when Approved updates are available	unknown
303d Polygons	WRCB	District	Bi-Yearly or when Approved updates are available	4/1/2010
Soils	SSURGO	District	Yearly or when updates are available	9/1/12
Soils dissolved by Hydro Unit	SSURGO	District	Yearly or when updates are available	9/1/12

Feature Class	Source	Responsible Party	Proposed Frequency of Updates	Date Last Updated
TMDL Polygons	WRCB	District	Bi-Yearly or when Approved updates are available	4/1/2010
TMDL Lines	WRCB	District	Bi-Yearly or when Approved updates are available	4/1/2010
Critical Habitat - San Diego Ambrosia	USF&W	District	Annually	Unknown
Critical Habitat - Nevins Barberry	USF&W	District	Annually	Unknown
Critical habitat - Brodiaea Filifolia	USF&W	District	Annually	Unknown
Critical Habitat - Coastal California Gnatcatcher	USF&W	District	Annually	Unknown
Critical Habitat - Vail Lake Ceanothus	USF&W	District	Annually	Unknown
Critical Habitat - least Bell's vireo	USF&W	District	Annually	Unknown
Critical Habitat - Munz's Onion	USF&W	District	Annually	Unknown
Critical Habitat - Yellow-Legged Frog	USF&W	District	Annually	Unknown
Critical Habitat - Spreading Navarretia	USF&W	District	Annually	Unknown
Critical Habitat - Peninsular Bighorn Sheep	USF&W	District	Annually	Unknown
Critical Habitat - Quino Checkerspot butterfly	USF&W	District	Annually	Unknown
Critical Habitat - Riverside Fairy Shrimp Final Critical Habitat	USF&W	District	Annually	Unknown
Critical Habitat - San Bernardino Kangaroo Rat	USF&W	District	Annually	Unknown
Area Subject Hydromod	RBF	District	Annually or as needed	8/1/12
City Storm Drain	City List	District	Yearly	Unknown
City Storm Points	City List w/o Wildomar	District	Annually	Unknown
Control Release Locations	RBF	District	Annually or as needed	9/1/12
Drainage Area Boundaries	Corona	District	Yearly	Unknown
Major Watersheds	USGS NHD, Permitees	District	Yearly or as needed	9/1/12
DistrictStorm Points	District	District	As needed	Unknown
District Storm Polygons	District	District	As needed	Unknown
Recharge Basins	Corona	District	Annually	Unknown

Feature Class	Source	Responsible Party	Proposed Frequency of Updates	Date Last Updated
Regional Watersheds	USGS NHD, Permitees	District	Yearly or as needed	9/1/12
Semi-Regional Watersheds	USGS NHD, Permitees	District	Yearly or as needed	9/1/12
Surface Water Channels	District	District	Quarterly	9/1/12
DTM	TLMA	District	Annually	7/1/2012
SLOPE-PERCENT	TLMA	District	Annually	7/1/2012

USGS-NHD - U.S. Geological Survey - National Hydrography Dataset
CBW - Chino Basin Watermaster
WRCB – Water Resources Control Board
USF&W - U.S. Fish and Wildlife
City List - Corona, Eastvale, Moreno Valley, Temecula, Menifee, Murrieta, Norco, Palm Desert, Riverside, Wildomar

The data maintenance methodology has included three methods for delivering updates to the District for inclusion in the SWCT^2. They are as follows:

1. When possible, data will remain at its source (such as the District GIS) and a network link will be developed over the Internet to allow this layer to be viewed as a service within the SWCT^2. This approach, also known as a "Mash-Up," is the most reliable method, because it leaves responsibility for update in the hands of the owner of the original dataset and no additional activity is required to update the SWCT^2. Changes that occur on the source are immediately reflected on the SWCT^2. Likely candidates for this method include the aerial photography, street base map, and parcel layers.
2. When a data service is not available or not possible, the District will seek to accomplish a database synchronization process using ArcSDE. This process synchronizes the changes or "deltas" in the database, including geographic updates without the need for a wholesale replacement of the dataset. This will make the updates quick and simple and provide the most efficient method for updating the SWCT^2 when the source is also using ArcSDE and is willing to participate in this update process.
3. The third update method consists of a standard manual update using a file geodatabase, personal geodatabase, or shapefile as available. This method will be employed for datasets not maintained at the District, and from State and Federal sources for which this is the primary method for data transfer.

The Permittees have created, updated, and imported metadata for the existing data layers in the SWCT^2. Metadata is a vital part of data maintenance and critical to the end-users. A brief description of the data, key words, publication date, and person by whom the data was received or created was incorporated into the metadata. Over the course of the development of the WAP, the metadata has been updated, and it will continue to be current. The data dictionary, which includes this metadata, is provided in Appendix C, and the metadata has been included in the SWCT^2 simply by clicking on the metadata tab next to any data layer in the table of contents.

5.1.5 Watershed Geodatabase Training and Outreach Recommendations

The development of the $SWCT^2$ has proceeded with the goal of providing a useful and comprehensive reference tool that is easy to use. Design guidelines were employed which should allow a novice user to access most of the site's functionality without any training. Further, since the $SWCT^2$ is browser-based, no additional software needs to be purchased and installed in order to use the application. (The Microsoft Silverlight browser plug-in is required. Silverlight is free and usually takes less than a minute to download and install). In addition, a comprehensive help document and quick start guide are included in the site. However, in order to access some of the more advanced functions and to aid the user in understanding the content of the reference data and supporting studies, some additional training and outreach is being contemplated.

Following the submittal of the Final WAP and announcement to the interested stakeholders for online access to the submitted WAP and $SWCT^2$, the Permittees will meet to discuss any comments, issues, or updates to $SWCT^2$. The District will then meet with RBF to discuss the findings from the meeting with the Permittees. The comments provided by the Permittees will then be considered for implementation into the $SWCT^2$ based on guidance from the District. Additional meetings between the Permittees will be necessary to assist the WAP and $SWCT^2$ meet their intended goal.

5.2 Coordination and Outreach with Regional Board Staff and Inter-Agencies/Stakeholders

Throughout the development of the $SWCT^2$, the District as Principal Permittee and stormwater program consultants have been making presentations on the progress of the $SWCT^2$ including the functionality and the available information. Once the $SWCT^2$ is available to the public the stakeholders will have the ability to:

- Verify attributes of the $SWCT^2$, including drainage feature stability/susceptibility/risk assessments; and
- Satisfy its intended use of supporting regulatory processes, such as WQMP approvals, CWA Section 401 Water Quality Standards Certifications (401 Certifications), and LID BMP feasibility evaluations.

Following this submittal, the District will seek to prepare additional targeted presentations and training opportunities for stakeholders to solicit input for improvements, additional data and functionality. Feedback will be compiled and considered. The District will continue to invite and encourage participation and comments from resource conservation districts, water and utility agencies, State and Federal agencies, non-governmental agencies, and other interested parties in the development and use of the $SWCT^2$.

5.2.1 WAP Coordination and Review Process

Once the WAP requirement was identified in the 2010 MS4 Permit, the District began planning the development of the WAP through coordination with the stakeholders and related agencies. The development of the WAP included multiple phases beginning with a Draft Outline and a Draft WAP Document, followed by the Final WAP Document. Stakeholder meetings were conducted after the submittal of the Draft WAP Outline to provide an opportunity to review each document and provide feedback.

In order to have an effective WAP, involving multiple stakeholders with different perspectives and water resource needs in the review process is necessary. Involvement creates a collaborative integrated watershed management approach to the WAP. This collaborative process serves as an opportunity for the watershed stakeholders to provide input on the WAP and watershed development processes.

Outreach for the Final WAP submittal is recommended. Outreach could consist of presentations at workshops, public hearings, or distribution of materials to related parties. This outreach will provide an opportunity for a variety of input throughout the region that could shed light on priorities in the SAR and how protection of the water resources in the SAR can be achieved. Specific presentations could be prepared for community members, groups, and proponents with varying views and needs. For example, presentations could be provided based on land use types to effectively target interests from parties within or related to these land uses. Such workshops could include project types such as residential, commercial/retail/industrial, parks and public facilities, streets and arterials, utility agencies, and environmental special interest groups. The combined effort from an amalgam of groups would provide an understanding of the underlying themes of the recommendations provided across the different groups. The workshops would provide the opportunity to receive input from stakeholders in the SAR to help formulate the objectives and structure of the WAP. The results of the workshops will be implemented into the WAP document to meet the requirements of the 2010 MS4 Permit.

5.2.2 LIP Coordination

The framework that provides the foundation for implementation of the 2010 MS4 Permit requirements is described in the DAMP. As required under the 2010 MS4 Permit, the Permittee LIPs describe how the requirements of the 2010 MS4 Permit are implemented. Accordingly, the DAMP and the LIP are the principal documents that comprehensively translate the 2010 MS4 Permit requirements into actions that manage water quality in the MS4. Following completion of the WAP, the model LIP will be revised as needed to incorporate the programs coordinated through the WAP.

Local Implementation planning provides the critical role of translating watershed protection principles into measurable actions that may be adopted by stakeholder agencies. The focus toward an updated LIP through the efforts of the WAP Task Force Members will provide consistency in a set of approaches that can be adopted at a local level by the Permittees. The results of the District efforts, in conjunction with the watershed stakeholders and the Regional Board, will be adoptable to Permittee requirements based on the application of LID principles while maintaining consistency throughout the SAR in a manner that will address the 2010 MS4 Permit requirements.

The structure of the WAP allows for the watershed priorities and watershed protection principles that were developed through stakeholder meetings to be coordinated and implemented as priorities through the Permittees' LIPs. These watershed protection principles will be specified in the SAR model LIP, which will present a framework for the development of the Permittees' individual LIPs. The Permittees' individual LIPs serve as the tool to implement watershed protection principles are in elements of a jurisdiction's program.

In consideration of the watershed protection principles identified in the WAP and in the Model LIP, a Permittee may accept or reject each of the watershed protection principles based on applicability or where there may be adequate justification inability to incorporate into a Permittee's LIP. If a watershed protection principle is rejected, the Permittee must provide an explanation of why it was rejected in its LIP. The LIP must also show how accepted watershed protection principles will be implemented. It is anticipated that the Permittees will use the WAP SWCT^2 to help them identify if they will accept or reject each of the watershed protection principles. In the next revision of the Model LIP, the concept of accepting or rejecting the watershed protection principles will be incorporated. The next revision of the Model LIP and subsequent updates for each of the Permittee's LIPs will commence after the approval of Final WAP by the Regional Board.

5.2.3 Regional Watershed Opportunities

This section of the WAP develops the progression of necessary tasks that will need to take place for the WAP to commence and continue working to restore and protect the Receiving Waters in the SAR. The development of the WAP has specific interrelationships and this section is meant to collaborate the resources and goals to protect and restore the Receiving Waters in the SAR in a holistic manner.

The identification of WAP principles, linkages, and other relevant efforts were critical in the development of the WAP Objectives. These Objectives provide the background to move forward with further development and implementation of the WAP. In order to create a vehicle to collect, manage, and review important data relative to the SAR, the SWCT^2 was implemented. This SWCT^2 will serve as the tool that can be used to help achieve the objectives of the WAP where detailed watershed information can be accessed by all of the stakeholders in the SAR. This access to information will be critical to achieving the objectives of the WAP.

The specific and regional studies discussed throughout the WAP are the first steps in both understanding some of the watershed processes and identifying potential locations for watershed restoration and water quality improvement. The Hydromodification susceptibility mapping was integrated into the SWCT^2 to help identify those areas that may be subject to additional Hydromodification requirements on a per-project basis. The channel assessment discusses how the existing drainages were classified and also helped to identify locations of opportunities for restoration; the classifications have been incorporated into the SWCT^2. The causes of stream degradation will help identify where there are issues in the SAR and what efforts can be put in place to reduce the source of the problem. Both the retrofit and restoration opportunities represent potential restoration in the SAR. The results of these efforts have been integrated into the SAR SWCT^2 which can help with future watershed planning efforts.

5.2.4 Regional Retrofit Opportunities

The SAR BMP Retrofit Assessment (Retrofit Study) provides the Permittees with recommendations for retrofit studies of possible sites such as MS4, parks and recreational areas that incorporate opportunities for addressing TMDL Implementation Plans, Hydromodification and LID implementation. The Retrofit Study was drafted to aid the Permittees in their efforts to effectively implement the requirements of the approved CBRP and soon to be approved CNRP for the MSAR TMDL and LE/CL TMDL, respectively, as well as Hydromodification Plan and LID implementation. Should the need for a retrofit BMP evaluation be determined through Permittee implementation of the implementation plans, the recommendations contained in the Retrofit Study can be used by the Permittees for selection of a possible site or sites for a more specific Retrofit analysis of suitability for implementation.

Before final selection and implementation of these identified potential retrofit location(s) can occur, benefits to the Receiving Waters in the SAR must be assessed (described in the next section). After this assessment of Receiving Water benefits and prioritization is performed, a Project-Specific detailed design and engineering analysis must be accomplished to demonstrate that the original uses (such as flood control and drainage) of the facility are not compromised. Cost estimating, environmental, and regulatory permit work must also be conducted, and property or lease restrictions must be investigated to address barriers that would preclude implementation of a potential BMP retrofit project (e.g., a park parcel with narrowly-defined recreational use restrictions).

5.2.5 Watershed Benefit Estimation

Understanding the watershed benefits of any implementation strategy is critical before decisions are made about implementation of regional BMPs. Pollutant removal and Hydromodification reduction impacts may be evaluated through the development of water quality/watershed modeling to provide a better understanding of the benefits that different BMP placement strategies will have upon Receiving Waters. Understanding where susceptible streams and high Pollutant concentrations are located will assist in the prioritization and selection of regional BMP implementation. The Receiving Water priorities should be considered when evaluating alternative BMP implementation scenarios. The locations that will provide the greatest Receiving Water quality and watershed benefits can then be identified and prioritized for construction. The costs of implementation of regional BMPs must also be assessed, and funding must be secured.

5.3 Long-Term WAP Program Development

The WAP is designed to be a living document so that as more information is developed in the SAR, more barriers to watershed protection principles are identified, and innovative ideas to achieving the WAP objectives are identified, they can be incorporated into the document. Achieving the objectives of the WAP will take time including effective coordination among the Permittees and watershed stakeholders. The WAP Objectives have been defined consistent with the 2010 SAR Permit, and as the WAP is further developed the WAP should also include coordination with Orange and San Bernardino Counties. This Tri-County coordination will allow for successful implementation of watershed protection principles in a cost-effective manner throughout the Santa Ana River Watershed. The WAP document should be used as a reference resource as well as a planning tool for current and future improvement projects within the Santa Ana River Watershed. Review and understanding of the WAP and the role it plays in the Santa Ana River Watershed is beneficial for watershed planning.

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Appendix A: Hydromodification Susceptibility Documentation and Mapping Report

Hydromodification Susceptibility Documentation Report and Mapping: Santa Ana Region

Prepared for:

Riverside County Flood Control And Water Conservation District

Prepared by:

RBF Consulting
14725 Alton Parkway
Irvine, California 92618

January 2012

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1 INTRODUCTION

This documentation report is part of the larger study for Riverside County Flood Control and Water Conservation District (District) to develop the Watershed Action Plan as required by the current Riverside County Santa Ana Region (SAR) Municipal Separate Storm Sewer System (MS4) Permit Order No. R8-2010-0033, NPDES No. CAS 618033 (MS4 Permit). This project includes the expansion of existing SAR maps to include lined and unlined channels and streams within the SAR Permit area with the goal of identifying those segments of existing stream channels that may be vulnerable to development impacts as required by the MS4 Permit.

1.1 Background

The Riverside SAR MS4 Permit identifies that the District and cities within the SAR (Permittees) shall develop a Watershed Action Plan (WAP) to address the entire Permit Area (see Figure 1). The District is the Principal Permittee for coordination of compliance with the MS4 Permit and is engaged in developing the components of the WAP on behalf of the Permittees. According to Section I of the MS4 Permit, as of 2006 the population of the Permit Area is approximately 1.2 million, occupying an area of approximately 1,396 square miles. The Permittees' MS4s include an estimated 59 miles of above ground channels and 75 miles of underground storm drain channels. The MS4 Permit regulates urban and storm water runoff from the urban areas within the Santa Ana Regional Water Quality Control Board's jurisdiction, which makes up approximately nineteen percent (19.1%) of the County. All other portions of Riverside County are regulated by the San Diego or Colorado River Basin Regional Water Quality Control Boards.

The WAP will assist the Permittees, as well as the development and environmental communities in the SAR, to integrate water quality and water conservation policies. It also encourages the capture and infiltration of stormwater into groundwater basins and the recharge of Lake Elsinore with treated runoff. According to Section XII.B of the MS4 Permit, the objective of the WAP is to address watershed scale water quality impacts of urbanization in the Permit Area associated with Urban Total Maximum Daily Load (TMDL) Waste Load Allocations (WLAs), stream system vulnerability to Hydromodification from Urban Runoff, cumulative impacts of development on vulnerable streams, preservation of Beneficial Uses of streams in the Permit Area, and protection of water resources, including groundwater recharge areas.

As part of the WAP, the Permitees are required to develop a Hydromodification Management Plan (HMP) which includes the delineation of the existing unarmored or soft-armored stream channels in the Permit Area that are identified to be vulnerable to Hydromodification from New Development and Significant Redevelopment projects.

1.2 Hydrologic Condition of Concern (HCOC)

The findings of the MS4 Permit (Section II.G) indicate that an HCOC exists when a site's hydrologic regime is altered and there are significant impacts on downstream stream channels and aquatic habitats, alone or in conjunction with impacts of other projects. Significant development has taken place in Riverside County in the last decade and urban development generally increases runoff volume, velocity, of runoff and the amount of Pollutants in the runoff.

Figure 1: Location Map

Unmitigated high volumes and velocities of discharges from MS4 facilities associated with New Development into natural watercourses from developed areas without needed controls can alter the natural rate of change of a stream and may adversely impact aquatic ecosystems and stream habitat and may cause stream bank erosion and physical modifications. These changes are the result of Hydromodification.

According to Section XII.E.9 of the Permit, a New Development and Significant Redevelopment project does not cause a HCOC if any one of the following conditions is met:

1. The project disturbs less than one acre and is not part of a common plan of development
2. The volume and the time of concentration of storm water runoff for the post-development condition is not significantly different from pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant). This may be achieved through Site Design and Treatment Control BMPs.
3. All downstream conveyance channels to an Adequate Sump (e.g. Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River or other lake, reservoir or natural resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity, and no sensitive stream habitat areas will be affected; or not identified in the Permitees' Hydromodification sensitivity maps required in Section XII.B, and no sensitive stream habitat areas will be affected.
4. The Permittees may request a variance from these criteria based on studies conducted by the Southern California Monitoring Coalition (SMC), Southern California Coastal Watershed Research Project (SCCWRP), California Association of Stormwater Quality Agencies (CASQA), or other regional studies.

1.3 Goals and Objectives

The goal of this study was to conduct a screening level analysis to identify and map stream channel segments that may be vulnerable to Hydromodification as required by the MS4 Permit. The purpose of mapping the susceptible stream channel segments was to develop a comprehensive map of the MS4 Permit area to assist the District, Co-Permittees, and project proponents to determine whether or not a project will drain to a potentially susceptible stream channel segment and may be subject to the HCOC requirements.

The study was divided into eight tasks:

1. Research and data collection;
2. Delineate and map existing stream channel segments;
3. Define and categorize groups of existing stream channel segments based on common characteristics;
4. Verify groups using provided data and site visits;
5. Identify an appropriate definition for an "engineered and regularly maintained" stream channel segment;
6. Conduct Susceptibility Assessment of the stream channels to identify segments that may be susceptible to Hydromodification;
7. Delineate and map existing hydrology watershed boundaries to stream channel segments that may be susceptible to Hydromodification;

8. Create the comprehensive HCOC Applicability Map of the MS4 Permit area.

This report documents the methodologies used to determine whether an existing stream channel segment may be susceptible to Hydromodification due to future development. It discusses the delineation of the existing stream channel segments and the watershed areas in the MS4 Permit area. It also provides two maps: Existing Stream Channel Delineation Map and HCOC Applicability Map as required by Sections II.G.10 and XII.B.4 of the MS4 Permit.

2 EXISTING CHANNEL DELINEATION MAP

This section discusses how the existing stream channels were delineated. It also discusses the grouping system used for the stream channel segments and provides the Existing Stream Channel Delineation Map, see Map 1.

2.1 Research and Data Collection

Data requests were provided to the Permittees (see Table 1) to assist in the collection of background data needed for the delineation of existing channels. The information collected from the Permittees included: aerial photographs, topography, as-built plans, Geographic Information System (GIS) data bases, drainage studies, Federal Emergency Management Agency (FEMA) floodplain studies, and more. The data provided by the Permittees was reviewed and verified for accuracy.

Table 1: Permittees

Principal Permittee	RCFC&WCD (District)	
Co-Permittees	1. Beaumont	9. Moreno Valley
	2. Calimesa	10. Murrieta
	3. Canyon Lake	11. Norco
	4. Corona	12. Perris
	5. County of Riverside	13. City of Riverside
	6. Hemet	14. San Jacinto
	7. Lake Elsinore	15. Wildomar
	8. Menifee	

2.2 Delineation of Existing Stream Channels

The goal of this task was to delineate all regional stream channels (above and below ground) within the Permit Area. Local stream channels were also mapped if it was found pertinent to determining if a sub-watershed drained to a stream channel segment potentially vulnerable to Hydromodification or if "all downstream conveyance channels to an Adequate Sump that will receive runoff from the project" are not vulnerable to Hydromodification.

The existing stream channels were predominately delineated using the District's GIS shapefile called: RCFC_FACILITIES_LINE. This shapefile provided GIS linework for all District above and below ground stream channels.

Additional stream channels were delineated using GIS shapefiles provided by the Co-Permittees and National Hydrography Dataset (NHD). This additional data was used to fill in gaps found in heavily urbanized and natural areas.

The shapefiles were verified through an investigation of as-built plans and aerial photography. Some stream channel delineations were added solely based on the aerial photography investigation. Any stream channel delineations in question were verified by site visits.

2.3 Existing Stream Channel Groups

To complete the initial mapping, the existing stream channels were categorized into five groups to better describe the individual stream channel segments by common traits. The groups are described below:

1. **Engineered, Fully Hardened and Maintained (EFHM):** This group includes constructed facilities that are fully armored (e.g. concrete, soil cement, rip rap rock, etc) on three sides and verified by as-builts, aerial photographs and/or a site visit. This group includes piped and boxed stream channel segments. The facility must also be maintained and designed based on an engineering criteria (e.g. a specific storm event.)

2. **Engineered, Partially Hardened and Maintained (EPHM):** This group includes constructed facilities that have some armoring (e.g. concrete, soil cement, rip rap rock, turf reinforcing mats, etc) on less than three sides and verified by as-builts, aerial photographs and/or a site visit. The armoring can include bank and/or invert lining that has been placed based on engineering criteria. The facility must also be maintained.

3. **Engineered, Earthen and Maintained (EEM):** This group includes constructed facilities that do not contain armoring but have been engineered to be stable systems and are verified by as-builts. The facility must also be maintained. This group is intended to be channel segments constructed for flood conveyance, which generally have a design capacity in excess of a 10-year storm event.

4. **Not Engineered and Earthen (NEE):** This group includes constructed facilities that are modified by anthropogenic activities, which may include floodplain encroachments by development, culverts, bridges, privately owned bank and/or invert stabilization (such as rip-rap or other forms of bank protection, roads, etc.) and other man-made modifications to the natural channel system that are not necessarily continuous or designed to meet any specific engineering standard, but have modified the natural hydrologic characteristics of the facility. The improvements may or may not be maintained.

5. **Natural (NAT):** This group includes stream channel facilities that are in a natural state, where the geometry has not been modified. The stream channel facility may or may not be maintained.

2.4 Categorization of Existing Stream Channel Groups

A desktop study was conducted to categorize each individual stream channel segment into one of the above groups. The desktop study included an examination of as-built plans and aerial photography. The segments that were in question were field verified. Field verification included visiting an accessible location along the segment of stream channel. Photographs and notes were taken in regards to the stream channel segment condition and armoring.

Any stream channel facilities that could not be accessed and/or were still in question were discussed and verified with the Permittee with jurisdictional responsibility for the facility.

3 SUSCEPTIBILITY ASSESSMENT

This section discusses the definition for an "engineered and regularly maintained" stream channel and the characteristics of stream channels that are identified to be not susceptible to adverse impacts from Hydromodification.

3.1 Definition for "Engineered and Regularly Maintained"

To satisfy Condition iii from Section XII.E.9.b of the MS4 Permit (refer to Section 1.2 of this Report), an "engineered and regularly maintained "stream channel must be defined. The basic definition is a stream channel facility constructed for storm water conveyance that is owned and maintained by a responsible agency and is not susceptible to adverse impacts from Hydromodification, but a more comprehensive definition is hard to establish because it is subjective. After careful consideration, this study has combined the five stream channel groups (EFHM, EPHM, EEM, NEE, and NAT) into two categories: Potentially Susceptible and Not Susceptible to Hydromodification. The groups themselves can then be used as the term's definition.

The five groups were combined into the two categories as shown below:

1. Not Susceptible

    a. EFHM – The risk for adverse impacts caused by Hydromodification is insignificant due to the armoring of the stream channel segment and the engineered design which would prevent erosion and degradation of the channel.

    b. EPHM - The risk for adverse impacts caused by Hydromodification is very low due to the partial armoring of the stream channel segment and the engineered design which would significantly lower the risk of erosion and degradation of the channel.

    c. EEM - The risk for adverse impacts caused by Hydromodification is low due to the engineered design of the stream channel segment which would lower the risk of erosion and degradation of the channel.

2. Potentially Susceptible

    a. NEE – It cannot be verified that the stream channel segment could handle the changes in runoff volume and duration associated with New Development or Significant Redevelopment without degradation. The risk for adverse impacts caused by Hydromodification is potentially significant. Future technical studies could determine the level of risk of Hydromodification in individual stream channel segments.

    b. NAT – The findings of the MS4 Permit indicate that these stream channel segments are vulnerable to Hydromodification resulting from runoff from New

Development or Significant Redevelopment. The risk for adverse impacts caused by Hydromodification is potentially significant. The level of risk may be determined through future technical studies.

3.2 Adequate Sump

An Adequate Sump is a large river, reservoir or basin that provides significant regional flood protection for the downstream watershed areas and mitigates flows such that any New Development or Significant Redevelopment project upstream will not cause a significant change in the downstream flow conditions. The MS4 Permit identifies Prado Dam, Lake Elsinore, Canyon Lake, and the Santa Ana River as Adequate Sumps.

The Permittees reserve the right to add additional facilities if they are identified to meet the above definition of an Adequate Sump. Mystic Lake, and Lake Matthews have been identified as reservoirs and basins that meet the Adequate Sump criteria. In the future, additional updates to the associated maps may be required in order to reflect the identification of additional Adequate Sumps.

3.2.1 Areas within Prado Dam

The flood control pool of Prado Basin provides a control for sub regional channels that discharge directly to the pool, rather than to the Santa Ana River. Several flood control pools have been defined within the basin. Two important lines are considered for this assessment: the 100-year storm and the 10-year storm inundation levels.

For this study the 10-year storm inundation level was chosen as the point at which existing stream channel erosion becomes influenced by the water surface in Prado Dam. Therefore, the stream channel segments downstream of the 10-year inundation level will not be susceptible to Hydromodification. The Prado Basin 10-year storm inundation level is at NAVD 88 Elevation 516.3.

3.2.2 Additional Large Rivers

As the size of a watershed increases, the potential for a New Development or Significant Redevelopment to cause an HCOC within the watershed decreases. Therefore large rivers are less likely to be susceptible to Hydromodification and can be defined as an Adequate Sump. However, the definition of a “large river” is subjective. For the purposes of this assessment the team sought a simplified, repeatable method for defining “large rivers”. The threshold used is described in the County of San Diego HMP, dated January 13, 2011, which states on page 6-5 that “potential river reaches that would be exempt from Hydromodification criteria include only those reaches for which the contributing drainage area exceeds 100 square miles and which have a 100-year design flow in excess of 20,000 cfs”.

In order to determine which stream channels would constitute large rivers, the following sources were investigated:

- Federal Emergency Management Agency, *Flood Insurance Study: Riverside County, California and Incorporated Areas*, dated August 2008.

- Riverside County Flood Control and Water Conservation District, *Report on San Jacinto River Hydrology*, dated March 1975.

Based on the available studies, the stream channel segments listed in Table 2 were identified to meet the drainage area and flow rate criteria. The location at which the stream channel exceeds the criteria is also listed. They are classified as not susceptible stream channels for the purposes of determining which watershed areas may be subject to the HCOC requirements.

Table 2: Large Rivers within Riverside County

River Name	Concentration Point	Drainage Area (sq mi)	100-year Flowrate (cfs)
Temescal Wash	U/S of Confluence with Bedford Canyon Wash	149.8	24,400
San Jacinto River	At Canyon Lake Spillway	692	23,000
San Jacinto River	At Cranston Bridge	141	37,600

The potential susceptibility to Hydromodification of each of the mapped stream channel segments is indicated on Map 2: HCOC Applicability Map. This susceptibility assessment provides the foundation for the HCOC Applicability Assessment.

4 APPLICABILITY CRITERIA

This section describes the HCOC applicability criteria and discusses the methodology for determining watershed areas where HCOC requirements may be applicable. The results of the HCOC Applicability Assessment are used to develop a comprehensive map of the MS4 Permit area which identifies those areas that are tributary to potentially susceptible stream channel segments and where runoff from New Development or Significant Redevelopment may cause a HCOC. The HCOC Applicability Map (see Map 2) provides a delineation of the potentially susceptible stream channel segments and the watershed areas that are applicable to the HCOC requirements.

4.1 Delineation of Existing Hydrology Watershed Boundaries

The existing hydrology watershed boundaries were predominately delineated using the NHD GIS shapefile called: NHDArea, provided by the District. This shapefile provided GIS linework for the entire Santa Ana River Basin watershed. The NHD data was verified and updated using: Master Plans of Drainage, Area Plans of Drainage, GIS data provided by the Permittees (drainage areas and local system storm drain data) and USGS topography.

The watershed boundaries were simplified using the collected data to delineate those areas tributary to stream channel segments that are potentially susceptible to Hydromodification.

4.2 HCOC Applicability Map

The Permit Area has been divided into two different watershed areas: Applicable and Not Applicable. The Not Applicable watershed areas would potentially be excluded from the HCOC requirements. New Development and Significant Redevelopment projects in the "applicable areas" shall continue to determine applicability in accordance with the HCOC requirements in Section XII.E.9 of the MS4 Permit.

- Applicable Watershed Areas – Watershed areas that drain to susceptible stream channels, where future New Development and/or Significant Redevelopment projects may adversely impact downstream erosion, sedimentation, or stream habitat by increasing the volume and/or duration of storm runoff. This includes watershed areas tributary to:
        - Non-Engineered, Earthen Stream Channels (NEE);
        - Natural Stream Channels (NAT).
    - New Development and Significant Redevelopment projects that are located within an Applicable Watershed Area should reference the HMP or WQMP for the specific qualifying criteria to meet the HCOC requirements.

- Not Applicable Watershed Areas –Watershed areas that drain directly to an Adequate Sump (e.g. Santa Ana River, Lake Elsinore, Canyon Lake, and Prado Dam) or Large River (see Section 3.2.1) via a drainage facility that is not susceptible to Hydromodification.

- Not Susceptible drainage facilities fall under the term "Engineered and Regularly Maintained"per the Permit and includes:
  - Engineered, Fully Hardened and Maintained Drainage Facilities (EFHM);
  - Engineered, Partial Hardened and Maintained Drainage Facilities (EPHM);
  - Engineered, Earthen and Maintained Drainage Facilities (EEM).

- For New Development or Significant Redevelopment projects in a Not Applicable watershed area, if the site does not drain directly to a mapped stream channel, then the project must show that all downstream conveyance channels to the mapped segment are "engineered and regularly maintained" facilities. Refer to the HMP or WQMP for the specific qualitying criteria to meet the HCOC requirements.

Existing Stream Channel Delineation Map

Hydromodification Susceptibility Documentation Report and Mapping
Riverside County Flood Control and Water Conservation District

Map 1

HCOC Applicability Map

Hydromodification Susceptibility Documentation Report and Mapping
Riverside County Flood Control and Water Conservation District

Map 2

Appendix B: Santa Ana Watershed BMP Retrofit Assessment

Date:	January 10, 2013
Recipient:	Riverside County Flood Control and Water Conservation District
Project:	Riverside County BMP Retrofit Study
Subject:	Santa Ana Watershed BMP Retrofit Assessment – Technical Memorandum

1 Introduction

To support the Riverside County Flood Control District (District) and Co-permittees in complying with the MS4 permit for the Santa Ana Watershed (Order No. R8-2010-0033), Tetra Tech has developed the following Best Management Practice (BMP) Retrofit assessments for the Santa Ana Region.

- Identification and prioritization of possible parcel-based structural BMP retrofit opportunities
- Identification and prioritization of possible flood control facility BMP retrofit opportunities

The intent of this project was to identify a list of parcels and flood control facilities that are possible candidates for future BMP retrofits in the event that structural solutions are found to be necessary to address pollutant issues. Each opportunity was identified, evaluated, and ranked based on a suite of important characteristics, such as location in the watershed, soil types, and engineering feasibility.

This Retrofit Study is designed to support the permittee efforts in complying with adopted TMDL's, these efforts include but are not limited to Comprehensive Bacteria Reduction Plan (CBRP) and Comprehensive Nutrient Reduction Plan (CNRP) implementation. Both of these plans were submitted to the California Water Resources Control Board, and are at various stages of approval..

While not focused solely on bacteria and nutrients, this Retrofit Study identifies sites suitable for possible structural retrofits that can be coordinated with high priority areas identified in the CBRP and CNRP over time. Since a large number of potential sites have been defined over a range of municipalities and catchment areas, priority for assessing these potential sites can be reassigned as more details of the CBRP and CNRP implementation plans are developed.

Scoring criteria and the overall retrofit study approach to selecting and prioritizing sites was refined pursuant to discussions with the District and the Co-permittees. This document includes a discussion of the associated data summary review, site selection and prioritization criteria, watershed delineation criteria, BMP retrofit prioritization results, the various GIS maps used to support the discussion.

Parcel-based BMP retrofit prioritization results are located in Section 2 and flood control facility BMP retrofit prioritization results are located in Section 3.

2 Parcel-Based BMP Retrofit Assessment

At the direction of the District and Riverside County Santa Ana Region Co-permittees, the parcel-based BMP screening and prioritization process focused on public lands owned by the District, municipalities, and public school districts within the study area.

Since structural storm water BMPs involve identifying and setting aside land for storm water treatment, assessing opportunities on existing publicly-owned lands is important. Structural BMP treatment, especially in the case of centralized BMPs, can often be integrated into parks or playing fields without compromising function. Thus, opportunities for incorporating BMPs within recreation areas and other public open space areas were assessed as a first step in evaluating available possible BMP retrofit sites.

2.1 Data Summary

The site selection and prioritization process of parcel-based BMP retrofits involved GIS-based analyses using the best available reconnaissance level aerial imagery survey data. To support the retrofit site selection process, several geospatial and tabular data sets were used, including the following.

- Parcels data
- Slopes
- Soils (hydrologic soil groups)
- Land use
- Topography
- Regional watersheds
- Existing/proposed BMP locations
- School sites
- Park sites
- Aerial imagery
- Groundwater/soil contamination sites.

The majority of the data were obtained from the following sources.

- Riverside County Flood Control and Water Conservation District
- Riverside County Transportation & Land Management Agency (TMLA)
- Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO)
- California State Water Resources Control Board (SWRCB) Geotracker
- ESRI Maps and Data server.

Table 2-1 summarizes the data used in the site selection process.

Table 2-1 – Data Summary for Site Selection Process

Data Set	Type	Description	Source
Parcels	GIS Shapefile	Parcel boundaries and ownership from assessor's data	TMLA
Soils	GIS Shapefile	Spatial extents of hydrologic soils groups (HSG)	NRCS SSURGO
Topography	GIS Shapefile	Elevation DEM used to derive the slopes information	USGS
Watersheds (hydrography)	GIS Shapefile	Extent of NHD+ regional watersheds	NHD+
BMP Locations	GIS Shapefile	Existing BMP locations outlined in RBF 2005 Report	RCFCWCD
Schools	GIS Shapefile	School district property ownership extracted from parcel data	TMLA
Parks	GIS Shapefile	Active parks located within Riverside County	TMLA
Impervious Area	GIS Shapefile	NLCD Impervious 2006 data raster identifying percent imperviousness	NLCD
Waterbodies	GIS Shapefile	Streams, rivers, lakes and other waterbodies	RCFCWCD
Groundwater/soil contamination	Point Data	Past and current groundwater/soil remediation sites	California SWRCB Geotracker
Stephen’s Kangaroo Rat (SKR) Area	GIS Shapefile	Stephen's Kangaroo Rat habitat and reserves areas	TMLA
Average Annual Precipitation	GIS Shapefile	Average Annual Precipitation (inches)	National Atlas

In addition to the data described above, Tetra Tech also referenced the 2005 *Riverside County Stormwater Program BMP Siting Study for the Santa Ana Permit Area*, prepared by RBF Consulting. This study used a GIS-based methodology to identify potential retrofit sites that would treat drainage from sub-watersheds of 100 to 500 acres in size.

Drainage areas of this size require substantial land areas to provide adequate storm water treatment. The RBF study identified potential sites with sufficient land area for storm water treatment of the associated drainage area (see Figure 2-1). Additional sites were also identified by the Co-permittees. Tetra Tech used the information in the 2005 study[1] to the extent possible to incorporate the identified sites.

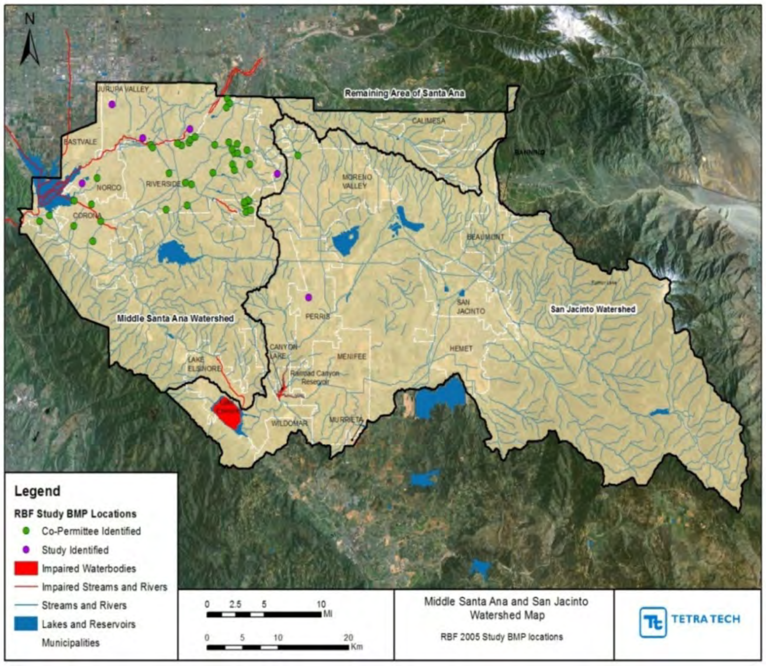

Figure 2-1 – BMP Locations Identified in 2005 Santa Ana Study

2.2 Site Selection and Prioritization Criteria

The site selection process identifies parcels potentially suitable for BMP implementation through the use of a primary screening to eliminate unsuitable parcels based on physical and jurisdictional characteristics. Parcels are then prioritized using a ranking system based on site characteristics to express the estimated feasibility for BMP implementation.

In the primary screening process, privately-owned parcels (as identified through owner name and taxability information in the Riverside County parcel database) and parcels with a slope greater than 10 percent were eliminated as possible sites. For this analysis, slope was determined on the basis of the digital elevation model (DEM).

The results of the primary screening provided a base list of 4,596 parcels potentially suitable for BMP implementation or retrofits. Evaluation of these parcels for potential BMP implementation is based on factors that gage the suitability of the site to implement an effective BMP. These factors were used to score or prioritize potential sites:

- **Infiltration capacity (Soil type):** The mapped hydrologic soils groups were used as an estimate for the infiltration rate and storage capacity of the soils. Sites where mapped hydrologic soils

[1] In a number of cases, the APN (parcel identification number) provided in the 2005 report was not associated with a current Riverside County APN and, as such, could not be located on the map.

groups have infiltration rates suitable for infiltration BMPs received higher priority as they allow for enhanced water quality treatment processes via infiltration. A geotechnical site investigation is encouraged to verify soil conditions.

- **Contaminated Sites:** Areas near contaminated sites received lower priority due to the potential for increased costs and complications during implementation.
- **Environmentally Sensitive Areas:** Areas designated as habitat or reserve areas for the Stephen's Kangaroo Rat were assigned lower scores to avoid BMP retrofits and potential associated mitigation issues in these sensitive areas.
- **Percent Parcel Imperviousness:** Parcels with a lower percentage of impervious area relative to the size of the parcel typically have more potential for centralized BMP implementation. Thus, parcels with lower percentages of impervious surface received a higher rank.
- **Parcel Size:** To determine if sufficient space is available to implement an appropriately sized BMP, the potentially available space on a parcel is evaluated based on the size of the parcel, the amount of existing impervious area, and the size of the contributing drainage area.
- **Proximity to the Storm Drainage Network:** Since centralized BMPs are especially effective in scenarios where runoff can be diverted from the existing drainage network for treatment, areas in close proximity to a storm drainage network received higher priority in the scoring matrix.
- **Depth to Groundwater Table:** Infiltration BMPs discharge treated stormwater to the soils underlying the BMP. Shallow groundwater tables can cause ponding to occur in the BMP and will subsequently adversely affect the function of the infiltration BMP. For infiltration BMP implementation, parcels with significant depth to groundwater tables are preferred.

The aforementioned factors were used in a scoring methodology to prioritize parcels for BMP implementation. Scoring methodology is based on a scale of 1 through 5 (with 5 being the highest score). Two sets of scoring thresholds are used to prioritize rural parcels (see Table 2-2) and urban parcels (Table 2-3separately. The distinction between rural and urban parcels is derived from the average imperviousness of the underlying NHD catchment (HUC-14).

Urban parcels are defined as HUC-14 catchments with an average imperviousness of 20% or greater based on NLCD coverage. Rural parcels are defined as HUC-14 catchments with an average imperviousness under 20%. The purpose of separate scoring thresholds for rural and urban parcels is to recognize the substantial spatial and infrastructure differences between the two settings.

For each parcel, these scores for each of the factors were added to result in a total score. Parcels with the highest total scores represent the best potential opportunities for a BMP retrofit or implementation. The scoring thresholds for rural and urban parcels are listed in Table 2-2 and Table 2-3, respectively.

Table 2-2 – Scoring Methodology for Prioritizing Rural Parcels for BMP Retrofits

Factor	Rural Area Scoring				
	5	4	3	2	1
HSG Soil Type	A	B	C	D	--
Proximity to contaminated soils (feet)	500+	300-500	250-300	100-250	<100
Proximity to SKR Habitat	Habitat outside parcel				Habitat within parcel
% Parcel Imperviousness	<5%	5-10%	10-15%	15-20%	>20%
Parcel Size (acres)	>100	50-100	25-50	5-25	<5

Factor	Rural Area Scoring				
	5	4	3	2	1
Proximity to storm drainage network (feet)	<100	100-250	250-500	500-1000	1000+
Proximity to surface water (feet)	<100 to impaired waterbody	<250 to all waterbodies (except impaired)	250-500 to all waterbodies	500-1000 to waterbodies	1000+ to all waterbodies
Depth to Ground water table (feet)			>20	15-20	< 15

Table 2-3 – Scoring Methodology for Prioritizing Urban Parcels for BMP Retrofits

Factor	Urbanized areas				
	5	4	3	2	1
HSG Soil Type	A,B	C	D		
Proximity to contaminated soils (feet)	500+	300-500	250-300	100-250	<100
Proximity to SKR Habitat	Habitat outside parcel				Habitat within parcel
% Parcel Imperviousness	<30%	30-40	40-50	50-60	60+
Parcel Size (acres)	>10	7 to 10	5 to 7	3 to 5	under 3
Proximity to storm drainage network (feet)	<50	50-100	100-200	200-300	300+
Proximity to surface water (ft)	<100 to impaired waterbody	<250 to all waterbodies (except impaired)	250-500 to all waterbodies	500-1000 to waterbodies	1000+ to all waterbodies
Depth to Ground water table (ft)			>20	15-20	< 15

2.3 Prioritization Results

Results of the prioritization process for both rural and urban parcels are summarized in this section.

- Figure 2-2 depicts top rural parcel opportunities for possible BMP implementation and retrofit
- Table 2-4 summarizes information regarding the top rural parcel opportunities
- Figure 2-3 depicts top urban parcel opportunities for possible BMP implementation and retrofit
- Table 2-5 summarizes information regarding the top urban parcel opportunities

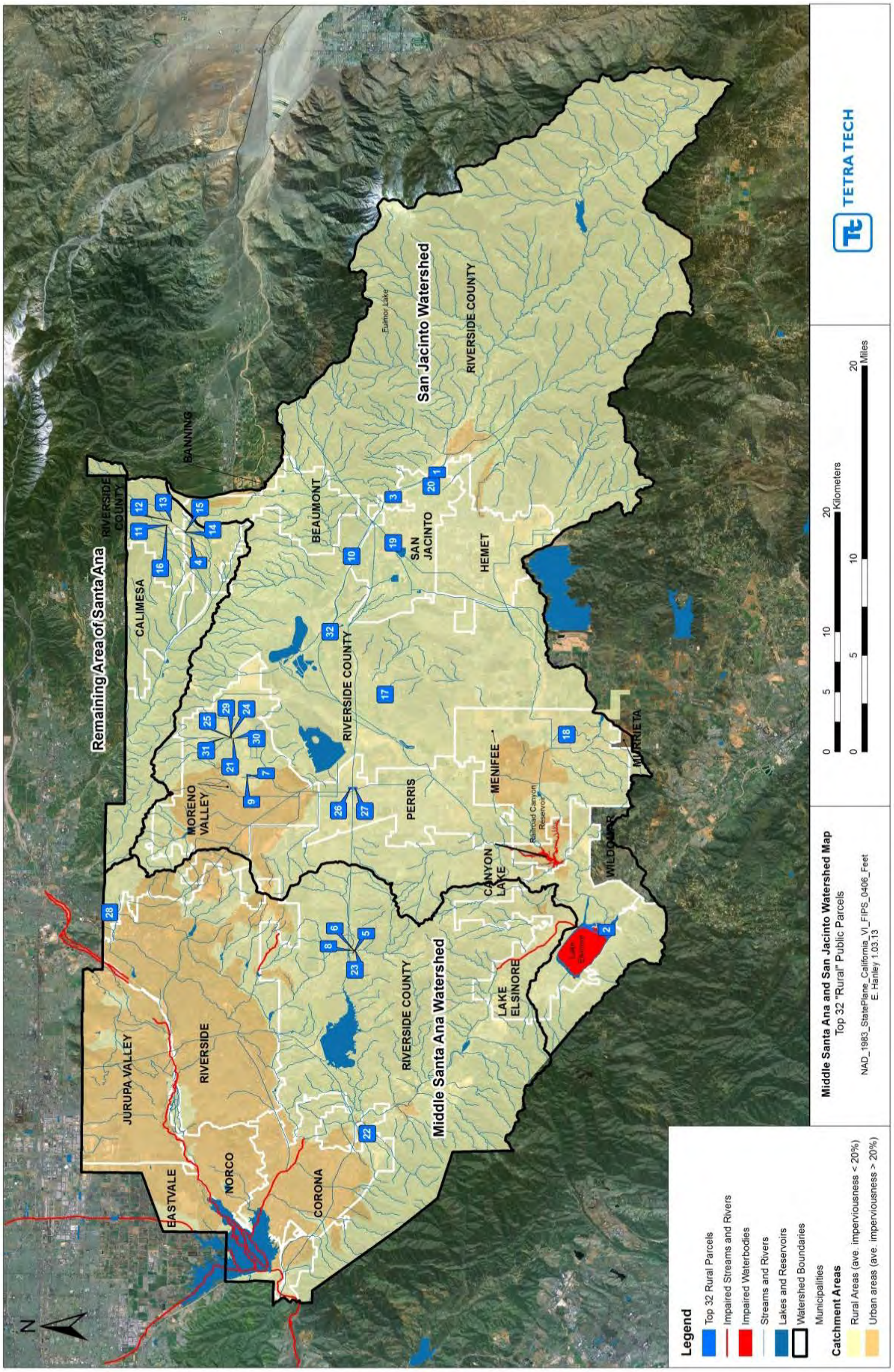

Figure 2-2 – Top Rural Parcel Opportunities for possible BMP Implementation and Retrofit

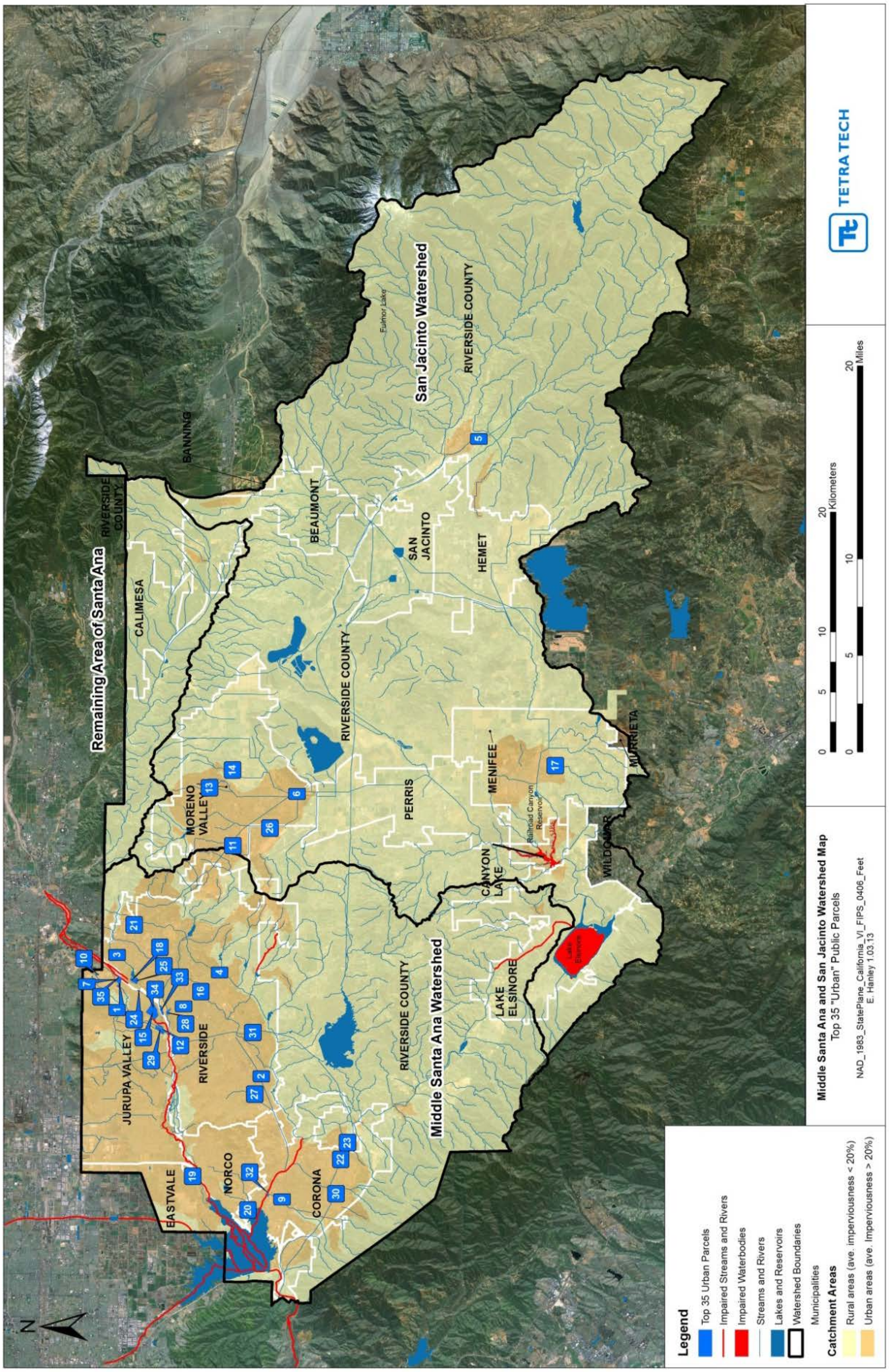

Figure 2-3 – Top Urban Parcel Opportunities for possible BMP Implementation and Retrofit

Table 2-4 – Top Rural possible BMP Implementation and Retrofit Opportunities

Rural Parcel Rank	Overall Parcel Rank	Watershed	APN	Municipality	Owner Name	Total Score
1	18	San Jacinto	547130016	San Jacinto	Riverside County Flood Control & Water Conservation District (RCFCWCD)	35
2	34	San Jacinto	381020005	Lake Elsinore	City Of Lake Elsinore	34
3	35	San Jacinto	433070045	San Jacinto	RCFCWCD	34
4	61	Remaining Area	400250009	Beaumont	City Of Beaumont	34
5	64	Middle Santa Ana	285190015	County	RCFCWCD	33
6	73	Middle Santa Ana	285190019	County	RCFCWCD	33
7	99	San Jacinto	486280026	Moreno Valley	County Of Riverside	33
8	113	Middle Santa Ana	285190020	County	RCFCWCD	33
9	117	San Jacinto	486280025	Moreno Valley	County Of Riverside	33
10	135	San Jacinto	430110017	County	County Of Riverside	33
11	136	Remaining Area	403252024	County	RCFCWCD	33
12	137	Remaining Area	403070012	County	RCFCWCD	33
13	138	Remaining Area	403070014	County	RCFCWCD	33
14	139	Remaining Area	404010011	Beaumont	RCFCWCD	33
15	140	Remaining Area	404010013	Beaumont	City Of Beaumont	33
16	141	Remaining Area	403262012	County	RCFCWCD	33
17	147	San Jacinto	427290021	County	RCFCWCD	32
18	148	San Jacinto	364070026	Menifee	Valley Wide Recreation & Park District	32
19	150	San Jacinto	436080010	San Jacinto	City Of San Jacinto	32
20	153	San Jacinto	433150024	San Jacinto	RCFCWCD	32
21	158	San Jacinto	478362003	Moreno Valley	RCFCWCD	32
22	168	Middle Santa Ana	279190046	Corona	Riverside County Transportation Commission	32
23	175	Middle Santa Ana	285200008	County	RCFCWCD	32
24	181	San Jacinto	478412035	Moreno Valley	RCFCWCD	32
25	191	San Jacinto	478412036	Moreno Valley	RCFCWCD	32
26	192	San Jacinto	303160006	Perris	City Of Perris	32
27	211	San Jacinto	303170010	Perris	City Of Perris	32
28	215	Middle Santa Ana	255070013	County	County of Riverside Redevelopment Agency	32
29	224	San Jacinto	478412037	Moreno Valley	Moreno Valley Community Services District	32
30	225	San Jacinto	478353003	Moreno Valley	RCFCWCD	32
31	242	San Jacinto	478400045	Moreno Valley	RCFCWCD	32
32	251	San Jacinto	425060010	County	County Of Riverside	32
33	252	Remaining Area	404010014	Beaumont	City Of Beaumont	32
34	253	Remaining Area	403070013	County	RCFCWCD	32
35	254	San Jacinto	300110014	Perris	RCFCWCD	32

Table 2-5 – Top Urban possible BMP Implementation and Retrofit Opportunities

Urban Parcel Rank	Overall Parcel Rank	Watershed	APN	Municipality	Owner Name	Total Score
1	1	Middle Santa Ana	178290006	Riverside	County Of Riverside	37
2	2	Middle Santa Ana	138030026	Riverside	Riverside County Transportation Commission	37
3	3	Middle Santa Ana	206070002	Riverside	City Of Riverside	37
4	4	Middle Santa Ana	241170001	Riverside	RCFCWCD	37
5	5	San Jacinto	552150042	County	Valley Wide Recreation & Park District	36
6	6	San Jacinto	312130010	Moreno Valley	Moreno Valley Community Services District	36
7	7	Middle Santa Ana	178290013	Jurupa Valley	County Of Riverside	36
8	8	Middle Santa Ana	187130004	Riverside	City Of Riverside	36
9	9	Middle Santa Ana	119190019	Corona	City Of Corona	36
10	10	Middle Santa Ana	175190029	Jurupa Valley	County Of Riverside	36
11	11	San Jacinto	291250005	Moreno Valley	City Of Moreno Valley	36
12	12	Middle Santa Ana	186270002	Jurupa Valley	County Of Riverside	36
13	13	San Jacinto	487021008	Moreno Valley	RCFCWCD	36
14	14	San Jacinto	487470013	Moreno Valley	City Of Moreno Valley	36
15	15	Middle Santa Ana	181220005	Jurupa Valley	Riverside County Regional Park & Open Space District	36
16	16	Middle Santa Ana	229070001	Riverside	City Of Riverside	36
17	17	San Jacinto	360050014	Menifee	City Of Menifee	35
18	19	Middle Santa Ana	207060012	Riverside	City Of Riverside	35
19	20	Middle Santa Ana	152050040	Eastvale	Jurupa Community Services District	35
20	21	Middle Santa Ana	121392006	Corona	City Of Corona	35
21	22	Middle Santa Ana	249130017	Riverside	Riverside County Transportation Commission	35
22	23	Middle Santa Ana	120130039	Corona	City Of Corona	35
23	24	Middle Santa Ana	277210008	County	County Of Riverside	35
24	25	Middle Santa Ana	179330008	Riverside	RCFCWCD	35
25	26	Middle Santa Ana	207050002	Riverside	City Of Riverside	35
26	27	San Jacinto	294090003	Moreno Valley	Moreno Valley Community Services District	35
27	28	Middle Santa Ana	142100015	Riverside	City Of Riverside	35
28	29	Middle Santa Ana	187130002	Riverside	County Of Riverside	35
29	30	Middle Santa Ana	186240003	Jurupa Valley	County Of Riverside	35
30	31	Middle Santa Ana	114070004	Corona	City Of Corona	35
31	32	Middle Santa Ana	239160001	Riverside	City Of Riverside	35
32	33	Middle Santa Ana	119190025	Corona	City of Corona Redevelopment Agency	35

Nine of the sites identified in the aforementioned 2005 *BMP Siting Study for the Santa Ana Permit Area* and associated Co-permittee BMP identification effort coincided with parcels identified in the primary screening detailed above. These parcels are listed in Table 2-6 and depicted in Figure 2-4. Eight out of the nine parcels had a total score of 31 or higher, with the lowest ranked parcel ranked 331 out of 4596 parcels.

Table 2-6 – Parcels Identified in 2005 BMP Siting Study

Rank	Watershed	APN	Municipality	Owner Name	Urban / Rural	Total Score	Source
15*	Middle Santa Ana	181220005	Jurupa Valley	Riverside County Regional Park & Open Space District	Urban	36	Study
29*	Middle Santa Ana	187130002	Riverside	County Of Riverside	Urban	35	Co-Permittee
55	Middle Santa Ana	120020002	Corona	City Of Corona	Urban	34	Co-Permittee
56	Middle Santa Ana	221220007	Riverside	City Of Riverside	Urban	34	Co-Permittee
80	Middle Santa Ana	246060010	Riverside	City Of Riverside	Urban	33	Co-Permittee
183	Middle Santa Ana	129341006	Norco	City Of Norco	Urban	32	Study
295	Middle Santa Ana	291440030	Riverside	RCFCWCD	Urban	31	Study
331	Middle Santa Ana	206070003	Riverside	City Of Riverside	Urban	31	Co-Permittee
2901	San Jacinto	311100023	Perris	RCFCWCD	Rural	24	Co-Study

*indicates 2005 study site that falls within the top 40 urban parcels.

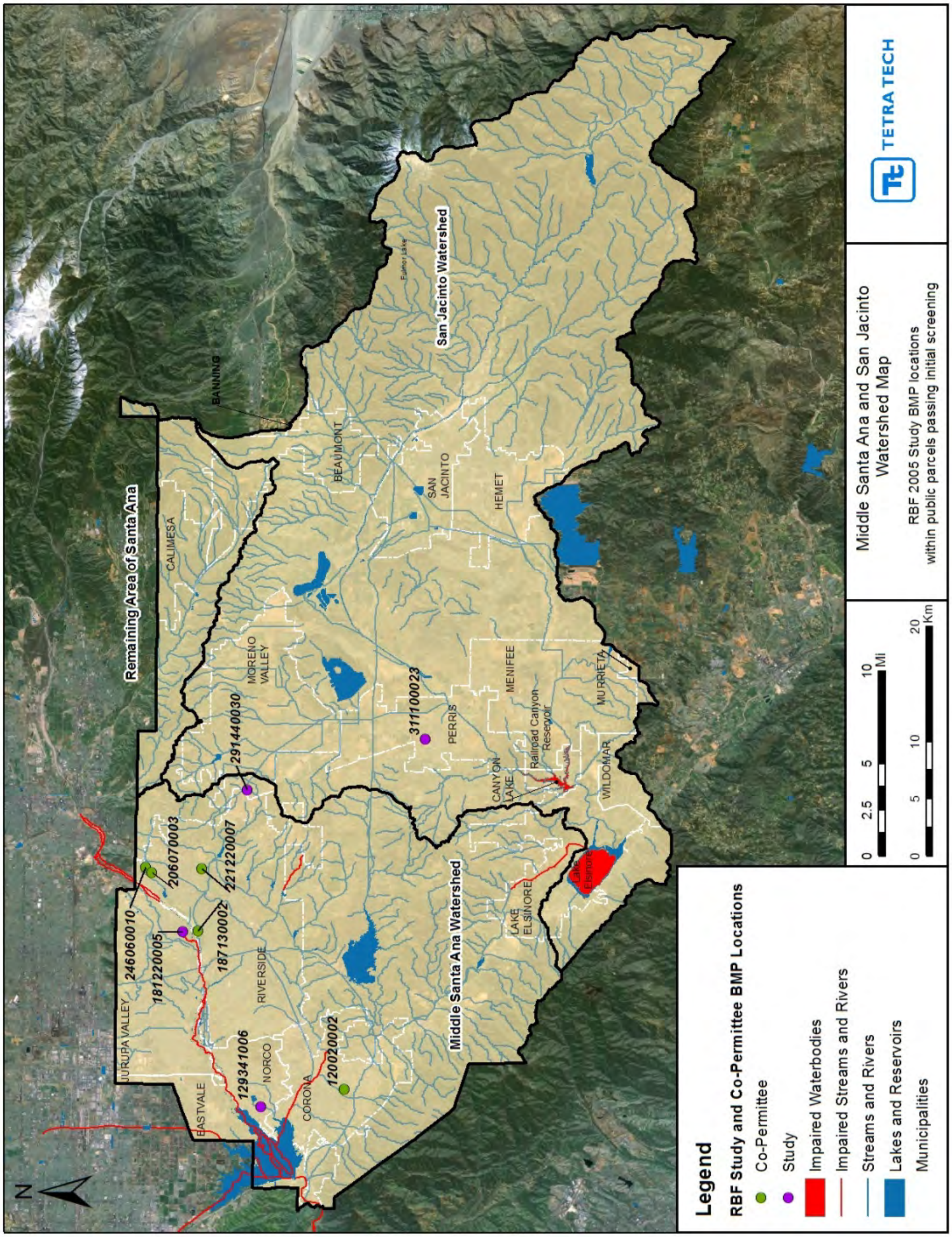

Figure 2-4 – Parcels Identified in 2005 Study (RBF and Co-permittee) as well as Parcel-Based Screening

3 Flood Control Facility BMP Retrofit Assessment

In addition to evaluating publicly owned parcels, existing flood control facilities were also investigated and prioritized for potential retrofitting opportunities. Such prioritization would focus on the feasibility of converting existing flood control facilities into dual-purpose structural BMPs to provide for future water quality treatment and aid in Total Maximum Daily Load (TMDL) compliance, in addition to maintaining the existing flood control peak flow attenuation function.

A preliminary screening identified 111 flood control facilities that could be considered for BMP retrofit. Locations of existing flood control facilities within the study area of the Santa Ana Region are illustrated in Figure 3-1.

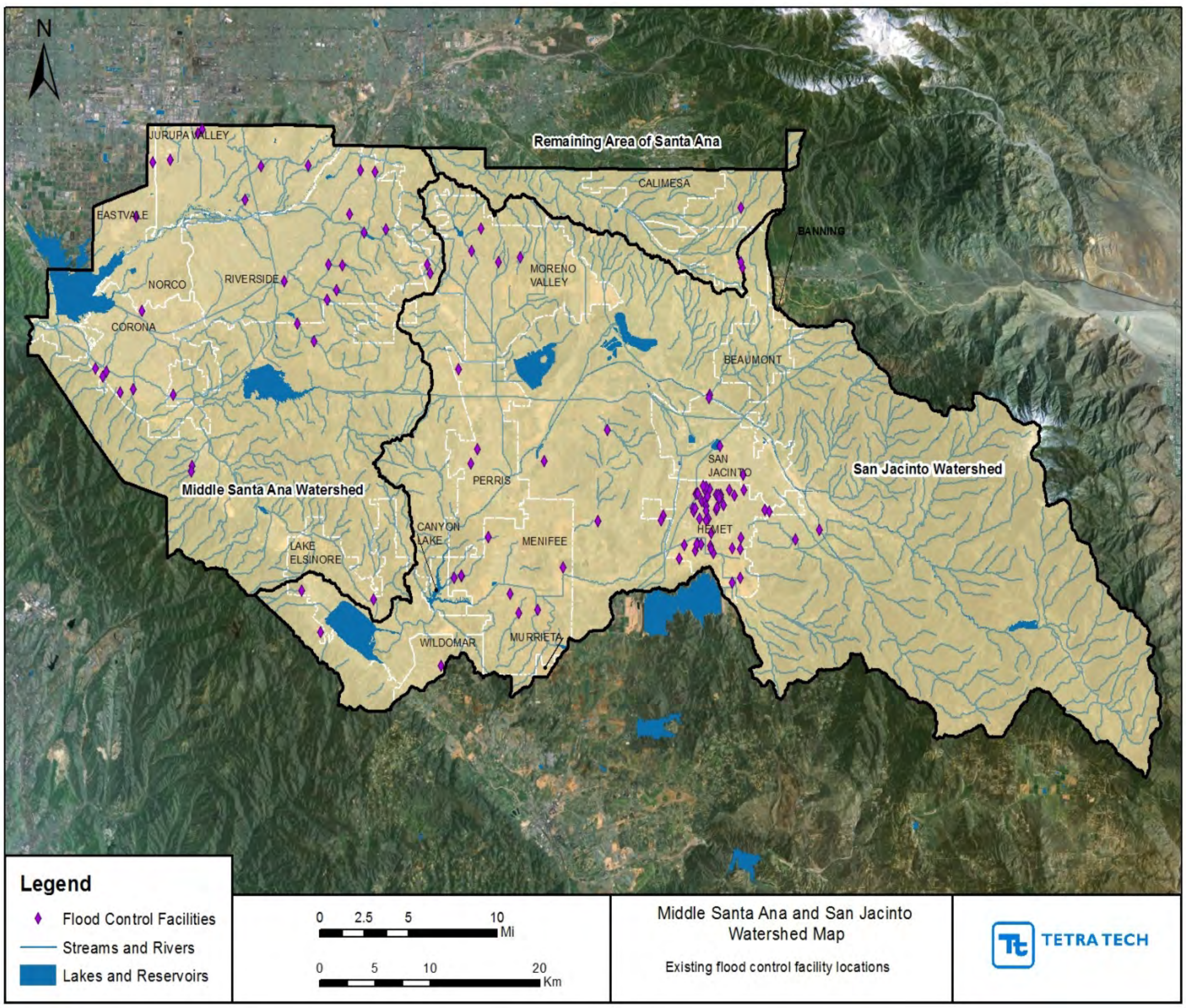

Figure 3-1 – Existing Flood Control Facility Locations

Based on discussions with the District, each of the existing flood control facilities is assumed to have the following characteristics.

1. Designed as a dry detention basin (no wet pond feature)
2. Constructed with an earthen basin bottom (no concrete lining of the basin bottom)
3. Only incidental infiltration provided (not currently designed as an infiltration facility)
4. Located on public land or have access via a maintenance easement

3.1 DATA SUMMARY

Information regarding existing flood control facilities in the region was provided by the District. Since specific design information was not available for each individual facility, it was necessary to evaluate the sites' potential for retrofit, based on the characteristics of the contributing drainage areas. Drainage area characteristics include the following.

- Contributing drainage area
- Percent imperviousness
- Precipitation zones
- Soils

Data sources for the drainage area characteristics are listed in Table 2-1.

3.2 WATERSHED DELINEATION METHODOLOGY

Drainage areas for the existing flood control facilities were delineated using arc-hydro GIS applications. Systematic delineations were derived from surface flow conditions based on Digital Elevation Model (DEM) topographic data with 3 meter resolution and watershed delineations provided by National Hydrography Dataset (NHD). Drainage areas to existing flood control facilities range from 0.22 acres to 168,500 acres.

In the event that drainage areas fell within the drainage areas of other flood control facilities, the drainage area of each flood control facility was considered in its entirety. In other words, the entire drainage area of a flood control facility was delineated despite the presence of other flood control facilities in the contributing watershed (no fragmentation of watersheds). The identification of these instances is relevant for prioritization efforts to avoid duplicative efforts in water quality treatment.

A facility treating a larger drainage area would generally be prioritized over the facility which treats a fraction of the same drainage area. Treatment of the entire drainage area by one facility would negate the need to retrofit other facilities within the same drainage area.

Contributing drainage areas to the existing flood control facilities are illustrated in Figure 3-2. As shown, a number of drainage areas overlap. Drainage areas with no interfering flood control facilities are highlighted in green. Flood control facility drainage areas containing drainage areas of other facilities are highlighted in red. The blue drainage areas indicate drainage areas of flood control facilities that fall within the drainage area of another facility.

The contributing drainage area metrics, pertinent to the Santa Ana Region, are illustrated in the following figures. Existing soils conditions are presented in Figure 3-3. Land use characteristics and impervious cover characteristics, with respect to the flood control facility contributing drainage areas, are presented in Figure 3-4 and Figure 3-5, respectively. Average annual precipitation amounts for the Santa Ana Region are illustrated in Figure 3-6.

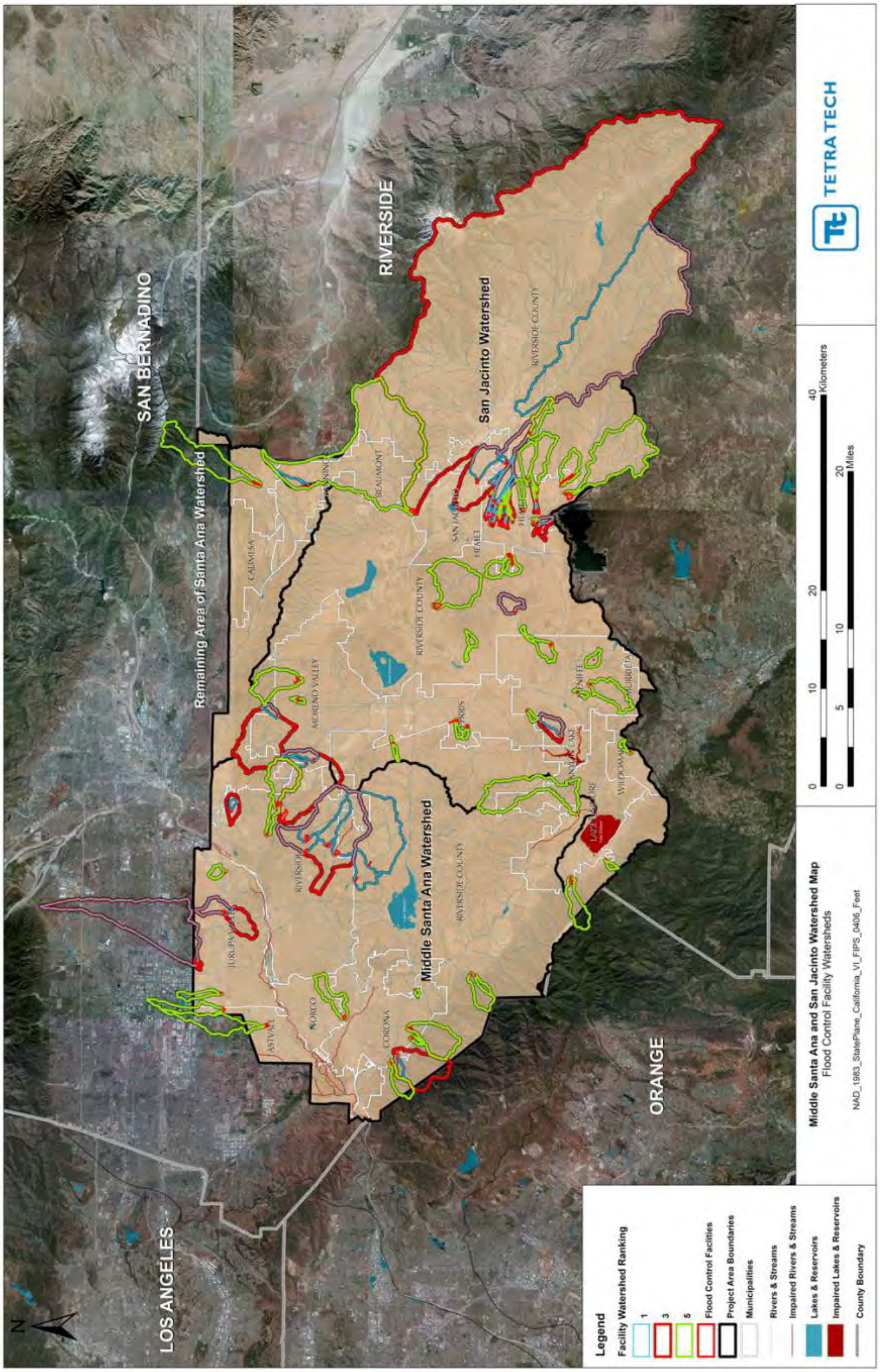

Figure 3-2 – Existing Flood Control Facility Watershed Delineations

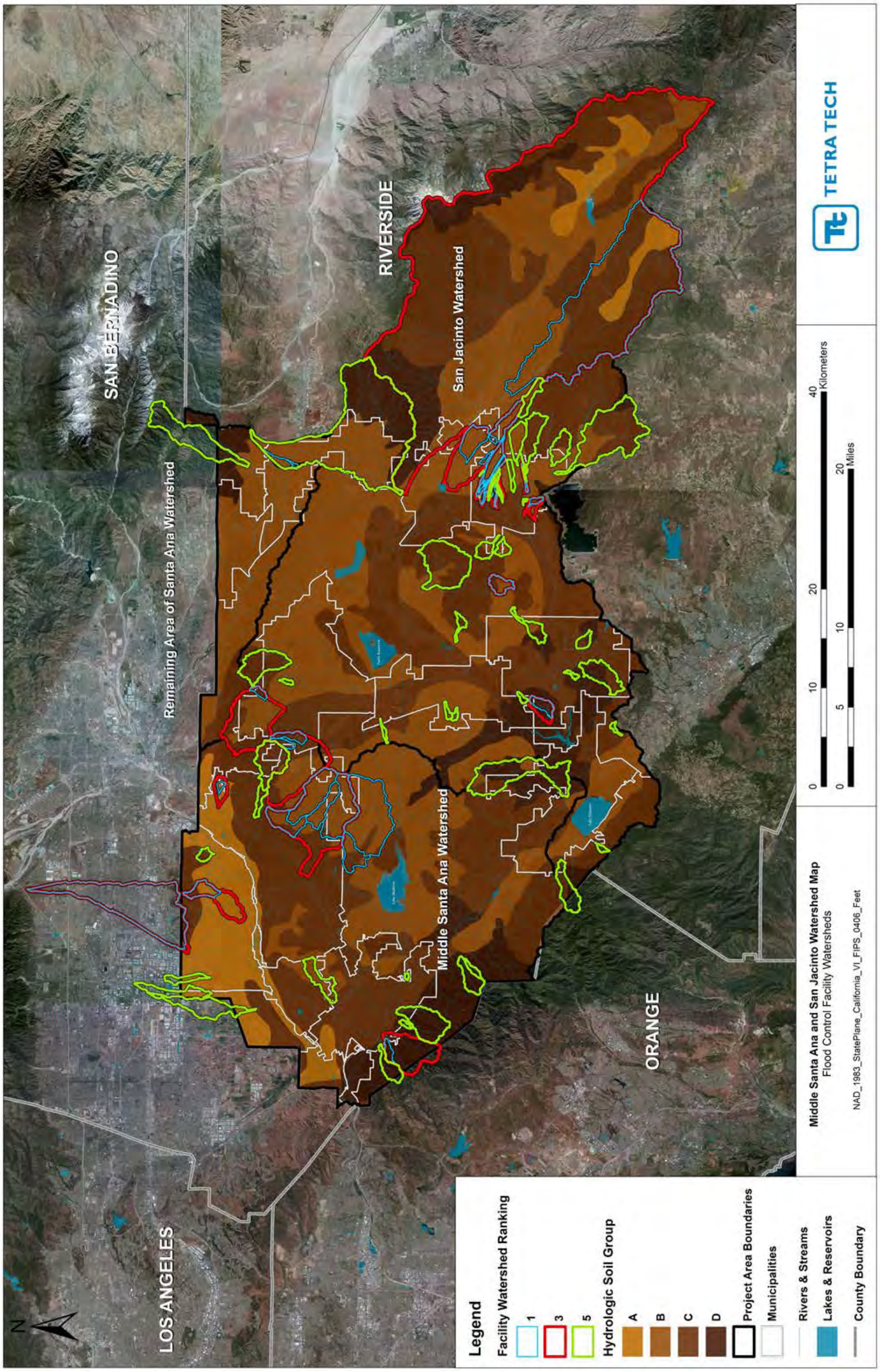

Figure 3-3 – Soils Data

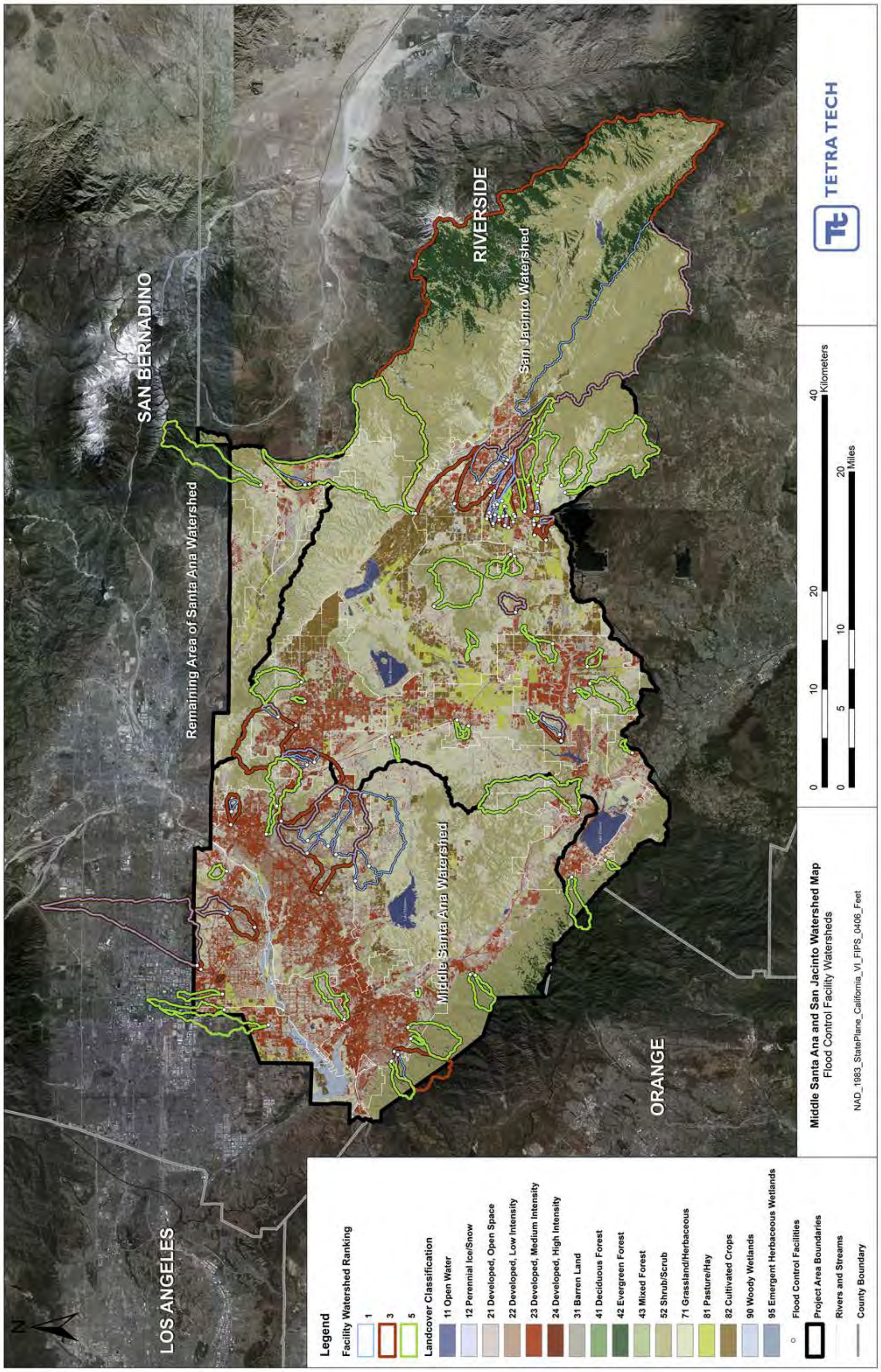

Figure 3-4 – Land Use Data

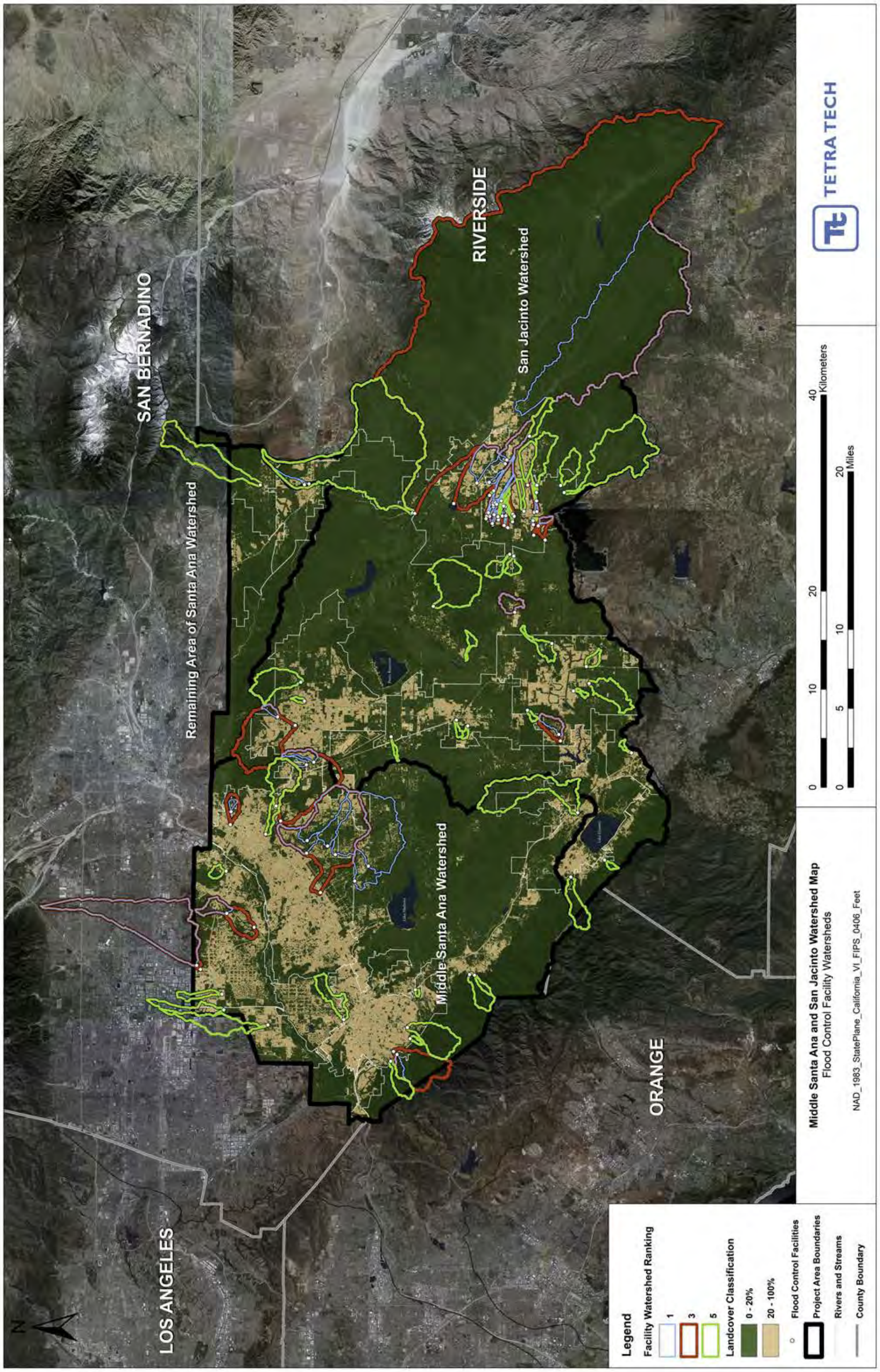

Figure 3-5 – Impervious Cover Data

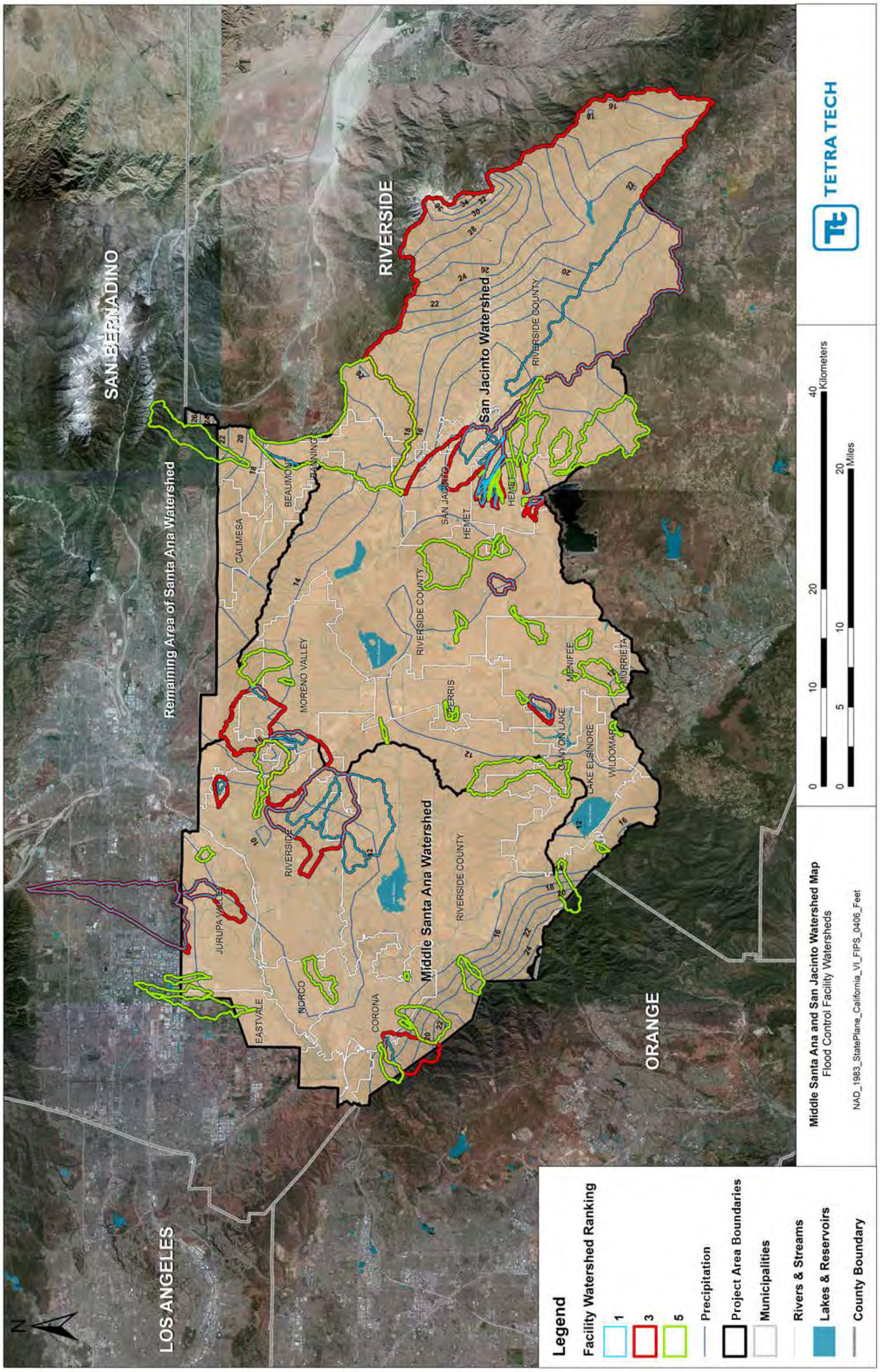

Figure 3-6 – Precipitation Data

3.3 Site Selection Criteria for Flood Control Facility Retrofit Opportunities

Existing flood control facilities were evaluated for possible retrofit opportunities using a scoring methodology approach. This approach used several factors to evaluate a flood control facility's potential for an effective BMP retrofit. Most of the scoring factors are related to the characteristics of the contributing drainage area of the flood control facility. These scoring factors are described below.

- **Drainage area size:** The potential for more significant water quality treatment and pollutant load removal increases with increasing contributing drainage area. Therefore, existing flood control facilities that collect runoff from larger contributing drainage areas are prioritized over flood control facilities that collect runoff from smaller drainage areas. Based on best professional judgment, large centralized BMPs effectively treat water quality of drainage areas less than 200 acres. For water quality treatment of drainage areas beyond 200 acres, further investigation is warranted to fully evaluate contaminant transport within the watershed and suitable BMP treatment.
- **Overlapping of drainage areas:** This criterion applies to flood control facilities that share drainage areas. Flood control facilities which collect outflows from upstream flood control facilities are prioritized over the upstream flood control facilities.
- **Percent imperviousness:** The mean percent imperviousness of the drainage area is considered to evaluate the expected amount of rainfall that will be converted to runoff. Typically, increased runoff is expected with increased impervious cover. An impervious percentage is used rather than an actual impervious acreage because an actual acreage may not accurately represent connectivity between the impervious covers. Although small in acreage, a high percent of imperviousness in a small catchment is often more likely to result in higher connectivity as compared to a significant acreage of impervious cover throughout a vast drainage area.
- **Infiltration Capacity (Soils):** Mapped hydrologic soil groups are used as estimates for the infiltration rate and storage capacity of the soils underlying the flood control facilities. Flood control facilities with highly infiltrative underlying hydrologic soils groups received higher priority as they provide maximum opportunities for water quality treatment via infiltration.
- **Average Annual Precipitation:** Average annual rainfall values provide insight on the amount of precipitation expected in a given drainage area. Drainage areas within high precipitation areas will be given higher priority as these areas will be more susceptible to high runoff conditions.

Scoring methodology is based on a scale of 1 through 5 (5 being the highest score). Scoring thresholds for each factor are presented in Table 3-1. For each flood control facility, the component scores are added to result in a total score. Flood control facilities with the highest total scores represent the best opportunity for a possible BMP retrofit. In instances where there are matching total scores, prioritization and ranking is ordered by drainage area in descending order. In other words, priority of flood control facilities with the same total score is given to the site with greater contributing drainage area.

In prioritizing potential flood control facility retrofitting, factors that played a key role include drainage area size, the relevancy of drainage area overlap, and the percent imperviousness of the drainage area. These key factors were given the highest possible of score of 5 when favorable conditions were met.

Table 3-1 – Scoring Methodology for Prioritizing Flood Control Facility Retrofit Opportunities

Factor	FCF Scores (5=best)				
	5	4	3	2	1
Avg. Annual Precip. (inches)		17-19	14-16	12-13	<11
Soil Type		A,B	C	D	
Percent Impervious	50+	30-50	20-30	10-20	<10
Overlapping Drainage Area	No	Catchment contains other FCF sub- catchments < 200 ac	Sub- catchment within another FCF drainage area < 200 ac	Catchment contains other FCF sub- catchments > 200 ac	Sub- catchment within another FCF drainage area > 200 ac
Drainage Area (acres)	100-200	10-100	1-10	200+	<1

Since the watershed delineation process was limited to systematic GIS-applications, storm drainage networks were not incorporated to account for some manipulated flow. Also, manual renderings were not made to account for some irregularities that can result from such automated processes.

Although a reasonably fine 3-meter DEM resolution was used, there are instances of catchments as small as 9 meters squared. There were three instances of irregularly small drainage areas as a result of the automated delineations. For these irregular delineations, a low drainage area score (score of 1) was used as the characteristics of the small area would not truly reflect the characteristics of the drainage area of that respective flood control facility. A detailed site survey or review of as-built drawings would be necessary to increase confidence in drainage delineations.

3.4 Prioritization Results

Results of the prioritization process for flood control facilities are summarized in this section.

- Table 3-2 summarizes information regarding the top possible rural parcel opportunities
- Figure 3-7 depicts top flood control facility possible opportunities for BMP implementation and retrofit

Table 3-2 – Flood Control Facility Prioritization Results

Rank	Site ID	Data Source	Drainage Area (ac)	Total Score
1	4-0353	RCFCWCD	111.86	21
2	1653C	Hemet	140.77	19
3	16540	Hemet	50.26	19
4	2-0305	RCFCWCD	1343.70	18
5	1-0245	RCFCWCD	579.11	18
6	1EF8D	Hemet	146.33	18
7	1650A	Hemet	111.64	18
8	165AB	Hemet	68.27	18
9	2-0112	RCFCWCD	54.93	18
10	16515	Hemet	53.15	18
11	1EF70	Hemet	35.80	18

Rank	Site ID	Data Source	Drainage Area (ac)	Total Score
12	1EF74	Hemet	24.90	18
13	16520	Hemet	1052.15	17
14	2E3F3	Hemet	162.12	17
15	2E38A	Hemet	125.20	17
16	2E2A5	Hemet	101.41	17
17	1EF72	Hemet	94.07	17
18	1EF92	Hemet	83.84	17
19	16547	Hemet	39.36	17
20	5-0040	RCFCWCD	4495.92	16

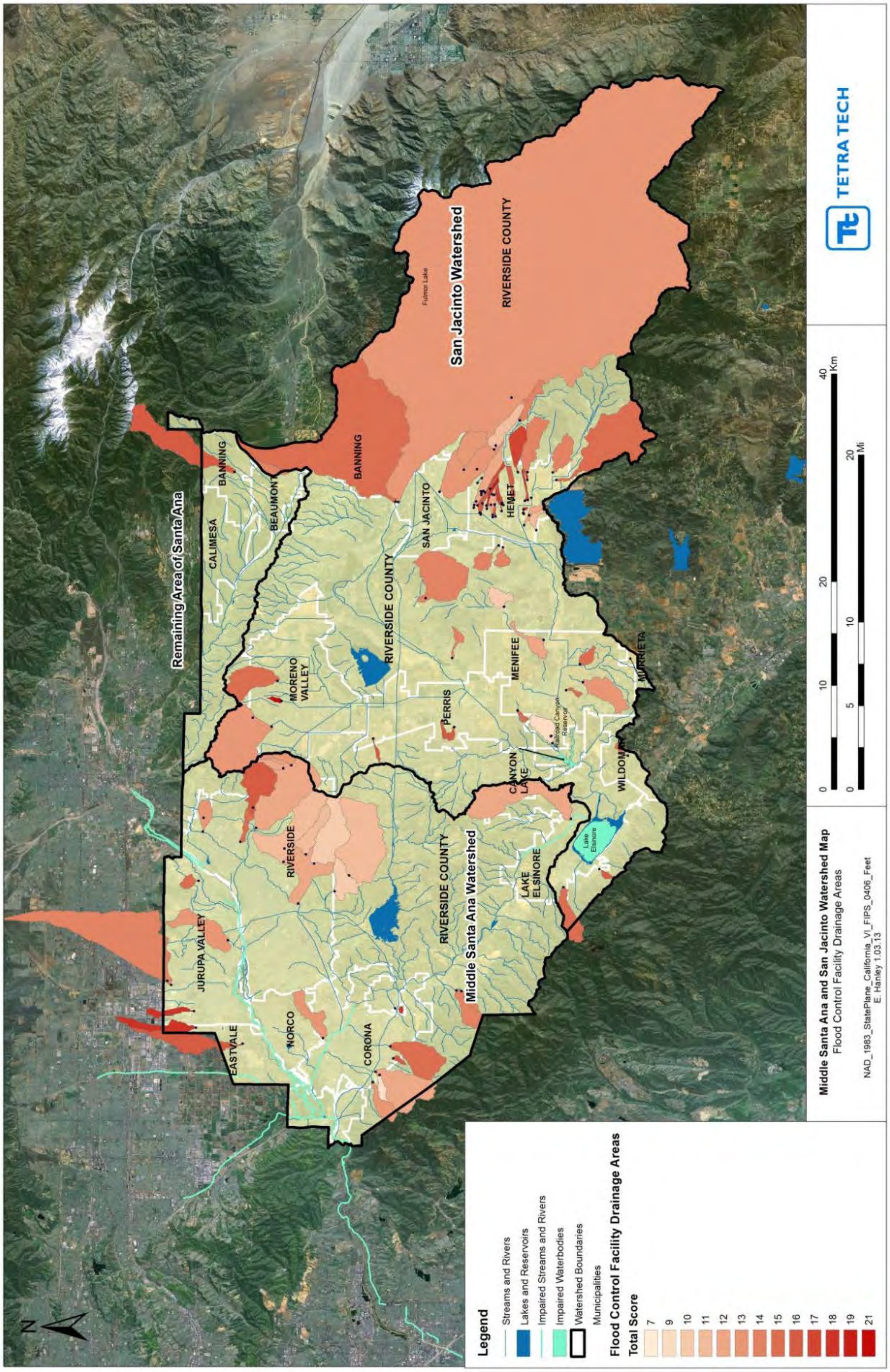

Figure 3-7 – Flood Control Facility Prioritization Results

4 Conclusion

As MS4 permit requirements shift focus from regional-scaled actions to site-scale Low Impact Development (LID) BMPs, watershed planning strategies need to emphasize the value in site-specific possible opportunities for BMP retrofit or potential BMP implementation. To support this shift in focus and provide potential alternatives, the Santa Ana Region Retrofit Study identifies potential opportunities for redevelopment to accomplish retrofits and new development to incorporate LID into initial design.

The Santa Ana Region Retrofit Study assessed and prioritized potential sites that are feasible for effective BMP retrofits or implementation. These sites are prioritized based on feasibility of that site to support a BMP which can be designed to address multiple benefits such as mitigating multiple water quality parameters and serving dual-purpose functions. Assessment of potential BMP opportunities in the Santa Ana Region relied on two approaches; a parcel-based approach and an approach using existing flood control facilities. Selection and prioritization processes of both approaches were performed using desktop analyses to evaluate physical characteristics of the sites. Although the most recent geospatial data was used in the analyses, field investigations are still warranted in order to comprehensively evaluate potential site restrictions and determine other potential multi-use or multi-benefit features.

The results of the parcel-based approach highlight publicly owned parcels, parks and recreational areas with favorable conditions for BMP implementation or possible retrofit. Most parcels are owned by RFCWCD or municipalities including the City of Lake Elsinore, Beaufort, San Jacinto, Perris, Corona, and Moreno Valley. Parcels were evaluated and prioritized differently depending on whether they fell within an urban or rural setting. This separation was performed to account for the varying characteristics that are inherently present in these areas. In addition, BMPs are designed to treat water quality which can also vary or be driven by the surrounding setting and land use. For the Santa Ana region, many impaired waterbodies are in urban settings; however, water quality concerns may be present in and exclusive to rural areas also in the region.

In addition to public parcels, existing flood control facilities in the Santa Ana Region were also evaluated for potential BMP retrofit opportunities. Flood control facilities attenuate peak flow from typically large drainage areas and may be retrofitted to provide water quality treatment benefits as well. Evaluation and prioritization of these existing facilities was based on drainage area characteristics using desktop analyses. Drainage areas were determined using GIS applications, and their resolution is limited by the 3-m DEM used. Similar to the parcel-based opportunities, a site investigation and a review of as-built drawings would be necessary to confirm or modify drainage delineations. Prioritization of flood control facilities emphasized facilities treating large drainage areas with high imperviousness and significant rainfall. Due to the close proximity of some facilities and to avoid duplicative efforts in treatment, facilities that treated drainage areas without interfering facilities were prioritized highest. Flood control facilities with drainage areas encompassing other facilities were prioritized next as one retrofit may be necessary to treat the entire area. Throughout the prioritization process a 200 acre drainage area was kept as a threshold for optimal water quality treatment. Although some flood control facilities may have large drainage areas (some exceeding 200 acres), confidence in their ability to serve as dual-purpose facilities can be confirmed through site investigations and review of as-built drawings.

Presented in the Retrofit Study are the top possible BMP retrofit opportunities in the Santa Ana Region. All the prioritized parcels and flood control facilities can be examined in the spreadsheet and GIS files enclosed. Within these attachments are all the site-specific characteristics and parameter scores used to determine the top priority sites. The top priority sites listed serve as starting points to efficiently navigate through all the potential retrofit sites throughout the Santa Ana Region. The attached results can be utilized with flexibility as other needs, focuses, or restrictions arise.

Although this Retrofit Study focused on publicly owned parcels and existing flood control facilities for potential retrofit opportunities, it is anticipated that the public will be encouraged to implement similar practices on private property as more is learned regarding the functional and aesthetic value of the LID practices. Focusing water quality treatment on a site-specific scale alleviates the need for large spaces for centralized facilities and maximizes the opportunities for LID and BMP implementation. Incorporating LID and BMPs throughout the Santa Ana Region reduces pollutant load in runoff via natural hydrologic process while adding aesthetic value to the environment.

Appendix C: Watershed SWCT^2 Data Dictionary

Riverside County

Stormwater and Water Conservation Tracking Tool

"SWCT^2"

Data Dictionary

December 2012

Prepared by RBF Consulting for the Riverside County Flood Control and Water Conservation District

Riverside County Stormwater and Water conservation Tracking Tool SWCT^2

Data Dictionary

Summary Information

6 Feature Datasets and 158 Feature Classes
3 Rasters
1 Table (Object Class)
10 Domains

Feature Datasets

<u>BaseData - Feature Dataset</u>
City_General_Plan - Simple
City_Specific_Plan - Simple
City_Zoning - Simple
Existing_Land_Use - Simple
GLU_HRU_Intersect_Study - Simple
Parcels - Simple
Parcels_CityOwned - Simple
Parcels_Flagged_Exempt - Simple
Parcels_RCFC_District - Simple
RCFC_Zones - Simple
Reports - Simple
TRANS_ROAD_FOREMAN_DISTRICTS - Simple
TRANS_ROAD_YARDS_MAT_SITES - Simple
TRANS_ROADBOOK_PAGE_INDEX - Simple
Vacant – Simple

CW_Data - Feature Dataset
Agpreserve - Simple
AIA - Simple
AirportCompatibilityZones - Simple
Airports - Simple
AmphibianSurvey - Simple
AreaPlanBoundary - Simple
AreaPlanSubunits - Simple
BurrowingOwlSurvey - Simple
CellGroups - Simple
Centerline - Simple
Cities - Simple
CityAnnexations - Simple
CityAnnexProposed - Simple
CitySpheres - Simple
Counties - Simple
CriteriaAreas - Simple
CriteriaAreaSpeciesSurvey - Simple
CriteriaCells - Simple
CSA - Simple
DemographicProjections - Simple
DesertTortoiseAreas - Simple
DrainageFee - Simple
Farmland - Simple
Faults - Simple
FaultZones - Simple
FloodDistrict - Simple
GeneralPlanLanduse - Simple
HighFire - Simple
Highways - Simple

Liquefaction - Simple
LMSActivities - Simple
MammalsSurvey - Simple
MinorWaterDistricts - Simple
Monuments - Simple
MSHCPBoundary - Simple
NarrowEndemicPlantsSurvey - Simple
Parks - Simple
PolicyAreas - Simple
PQP_ConservedLands - Simple
PublicSites - Simple
QuadIndex15 - Simple
QuadIndex75 - Simple
Railroads - Simple
Ranchos - Simple
RDBridge - Simple
RedevelopmentAreas - Simple
Roads - Simple
RoughStepUnits - Simple
Runways - Simple
SchoolDistricts - Simple
Sections - Simple
SKRHabitats - Simple
SKRPlanFee - Simple
SKRReserves - Simple
SpecificPlan - Simple
SupervisorialDistricts - Simple
Townships - Simple
TribalLands - Simple
TUMF - Simple
Vegetation - Simple
Waterbodies - Simple
WaterDistricts - Simple

Watersheds - Simple
Zoning - Simple

Environmental - Feature Dataset
CONTOURS - Simple
DTW_Contours - Simple
FLOOD - Simple
Flood_Zones - Simple
Geotracker - Simple
GW_Basins - Simple
GW_ManagementZones - Simple
Isoheyetal_Major_Contours - Simple
Isoheyetal_Minor_Contours - Simple
Isoheyetal_RainGauges - Simple
Lines_303d - Simple
Plumes - Simple
Polygons_303d - Simple
RCA_CONSERVED_LANDS - Simple
Soils - Simple
Soils_Hydro - Simple
SUBSIDENCE - Simple
TDAs - Simple
TMDLs - Simple
TMDLs_Line - Simple

Habitat - Feature Dataset
CriticalHabitat_AMPU - Simple
CriticalHabitat_ARUR - Simple
CriticalHabitat_ASAL - Simple
CriticalHabitat_BENE - Simple
CriticalHabitat_BRFI - Simple
CriticalHabitat_CACI - Simple
CriticalHabitat_CAGN - Simple
CriticalHabitat_CEOP - Simple
CriticalHabitat_ERKEA - Simple
CriticalHabitat_EROVV - Simple
CriticalHabitat_ERPA - Simple
CriticalHabitat_LBV - Simple
CriticalHabitat_LEKIB - Simple
CriticalHabitat_LMS - Simple
CriticalHabitat_MUON - Simple
CriticalHabitat_MYLF - Simple
CriticalHabitat_NAFO - Simple
CriticalHabitat_PBS - Simple
CriticalHabitat_POAT - Simple
CriticalHabitat_QCB - Simple
CriticalHabitat_RFS - Simple
CriticalHabitat_SBKR - Simple
CriticalHabitat_SDFS - Simple
CriticalHabitat_SDTM - Simple
CriticalHabitat_SDTM_Point - Simple
CriticalHabitat_SWWF - Simple
CriticalHabitat_WSP - Simple
CriticalHabitiat_TACA - Simple
Habitat_Union - Simple

RivParcelBase - Feature Dataset
BookBoundary - Simple
CONDOMINIUMS - Simple
CONDOMINIUMS_ASSESSOR - Simple

Surface_Water - Feature Dataset
Area_Subject_Hydromod - Simple
City_Storm_Drain - Simple
City_Storm_Points - Simple
City_Storm_Polys - Simple
Control_Release_Locations - Simple
Drainage_Area_Boundaries - Simple
Field_Verification - Simple
Major_Watersheds - Simple
NPDES_WQMP - Simple
RCFC_Lines - Simple
RCFC_Storm_Points - Simple
RCFC_Storm_Polygons - Simple
Recharge_Basins - Simple
Regional_Watersheds - Simple
SemiRegional_Watersheds - Simple
SurfaceWater_Channels - Simple
Swale_Lines - Simple
TRANS_NPDES_BENEFICIAL_USE_WATERS - Simple
TRANS_NPDES_CULVERTS - Simple
TRANS_NPDES_INLETS - Simple
TRANS_NPDES_OUTFALLS - Simple
TRANS_NPDES_OUTLETS - Simple
TRANS_NPDES_SWALES - Simple

Rasters

Dep_toGW - Raster RasterDataset
DTM - Raster RasterDataset
SLOPE_PERCENT - Raster RasterDataset

Tables

As_Builts - Table

Domains

CENTERLINE_MAINT_CODE_NEW
Concrete
CONTOUR_TYPE_Rules
GP_FOUNDATION_Rules
GP_LANDUSE_Rules
GP_OVERLAY_Rules
HCOC_SD
PUBLIC_SITES_REP_Rules
Watershed
ZONING_Rep1_Rules

BaseData - FeatureDataset

Name BaseData

Description Featureclasses Containing Base Data

City_General_Plan - FeatureClass

Name City_General_Plan

ShapeType Polygon

FeatureType Simple

AliasName City General Plan Landuse

HasM false

HasZ false

HasAttachments false

Description City General Plan Landuse

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
GP_LU	String	50	GP_LU	GP_LU			true		
LU_Overlay	String	50	LU_Overlay	LU_Overlay			true		
Foundation_Comp	String	50	Foundation_Comp	Foundation_Comp			true		
LU_Representation	String	50	LU_Representation	LU_Representation			true		
Overlay_Rep	String	50	Overlay_Rep	Overlay_Rep			true		
Foundation_Rep	String	50	Foundation_Rep	Foundation_Rep			true		
APN	String	15	APN	APN			true		

SP	String	50	SP	SP			true		
City	String	50	City	City			true		
LU_Description	String	50	LU_Description	LU_Description			true		
Notes	String	50	Notes	Notes			true		
Special_Max	String	50	Special_Max	Special_Max			true		
UniqueID	String	30	UniqueID	UniqueID			true		

City_Specific_Plan - FeatureClass

Name City_Specific_Plan
ShapeType Polygon
FeatureType Simple
AliasName City Specific Plans
HasM false
HasZ false
HasAttachments false
Description City Specific Plan

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
APN	String	9	APN	APN			true		
Zoning	String	50	Zoning	Zoning			true		
SP_Zoning	String	50	SP_Zoning	SP_Zoning			true		
General_Plan	String	50	General_Plan	General_Plan			true		
Overlay	String	50	Overlay	Overlay			true		
SP_Plan	String	50	SP_Plan	SP_Plan			true		
UniqueID	String	30	UniqueID	UniqueID			true		

City_Zoning - FeatureClass

Name	City_Zoning
ShapeType	Polygon
FeatureType	Simple
AliasName	City Zoning
HasM	false
HasZ	false
HasAttachments	false
Description	City Zoning

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Zoning	String	50	Zoning	Zoning			true		
Zone_Abbrev	String	50	Zone_Abbrev	Zone_Abbrev			true		
APN	String	9	APN	APN			true		
UniqueID	String	30	UniqueID	UniqueID			true		

Existing_Land_Use - FeatureClass

Name	Existing_Land_Use
ShapeType	Polygon
FeatureType	Simple
AliasName	Existing Landuse
HasM	false
HasZ	false
HasAttachments	false
Description	Existing Land Use

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DESCRIPTION	String	50	DESCRIPTION	DESCRIPTION			true		
LEGEND	String	50	LEGEND	LEGEND			true		
LU_CODE	String	30	LU_CODE	LU_CODE			true		
APN	String	30	APN	APN			true		
Land_Use	String	50	Land_Use	Land_Use			true		
Jur_LU	String	50	Jur_LU	Jur_LU			true		
Jur_Den	String	50	Jur_Den	Jur_Den			true		
Jurisdiction	String	50	Jurisdiction	Jurisdiction			true		
UniqueID	String	30	UniqueID	UniqueID			true		

GLU_HRU_Intersect_Study - FeatureClass

Name	GLU_HRU_Intersect_Study
ShapeType	Polygon
FeatureType	Simple
AliasName	GLU_HRU_Intersect_Study
HasM	false
HasZ	false
HasAttachments	false
Description	GLU HRU Intersect Study

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
FID_Land_C	Integer	4	FID_Land_C	FID_Land_C			true	10	0
CLASS_NAME	String	30	CLASS_NAME	CLASS_NAME			true		
Land_Cover	String	50	Land_Cover	Land_Cover			true		
FID_Geolog	Integer	4	FID_Geolog	FID_Geolog			true	10	0
CAGEOL_	Integer	4	CAGEOL_	CAGEOL_			true	10	0
CAGEOL_ID	Integer	4	CAGEOL_ID	CAGEOL_ID			true	10	0
PTYPE	String	35	PTYPE	PTYPE			true		
Soils	String	30	Soils	Soils			true		
FID_Slope_	Integer	4	FID_Slope_	FID_Slope_			true	10	0
Id	Integer	4	Id	Id			true	10	0
Slope	String	30	Slope	Slope			true		

Parcels - FeatureClass

Name Parcels
ShapeType Polygon
FeatureType Simple
AliasName Riverside County Parcels
HasM false
HasZ false
HasAttachments false
Description Polygon feature class graphically representing taxable parcels of land within Riverside County.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
APN	String	9	APN	APN			true		
FLAG	String	2	FLAG	FLAG			true		
MAIL_TO_NAME	String	43	MAIL_TO_NAME	MAIL_TO_NAME			true		
MAIL_TO_STREET	String	37	MAIL_TO_STREET	MAIL_TO_STREET			true		
MAIL_TO_CITY	String	31	MAIL_TO_CITY	MAIL_TO_CITY			true		
MAIL_TO_ZIP	Integer	4	MAIL_TO_ZIP	MAIL_TO_ZIP			true	10	0
HOUSE_NO	Integer	4	HOUSE_NO	HOUSE_NO			true	10	0
DIR	String	1	DIR	DIR			true		
STREET	String	18	STREET	STREET			true		
SUFFIX	String	3	SUFFIX	SUFFIX			true		
CITY	String	26	CITY	CITY			true		
ZIP	Integer	4	ZIP	ZIP			true	10	0
HOUSE_SUFF	Integer	4	HOUSE_SUFF	HOUSE_SUFF			true	10	0

UNIT	String	4	UNIT	UNIT			true		
REALUSE	String	2	REALUSE	REALUSE			true		
PRIMARY_CODE	String	1	PRIMARY_CODE	PRIMARY_CODE			true		
SECONDARY_CODE	Integer	4	SECONDARY_CODE	SECONDARY_CODE			true	10	0
MULTI_CODE	String	1	MULTI_CODE	MULTI_CODE			true		
TRACT	Integer	4	TRACT	TRACT			true	10	0
ACRE	Double	8	ACRE	ACRE			true	38	8
RECORDERS_TYPE	String	2	RECORDERS_TYPE	RECORDERS_TYPE			true		
RECORD_BOOK	Integer	4	RECORD_BOOK	RECORD_BOOK			true	10	0
RECORD_PAGE	Integer	4	RECORD_PAGE	RECORD_PAGE			true	10	0
CNTY_CODE	String	2	CNTY_CODE	CNTY_CODE			true		
LOT_TYPE	String	1	LOT_TYPE	LOT_TYPE			true		
LOT	String	4	LOT	LOT			true		
BLOCK_NO	String	3	BLOCK_NO	BLOCK_NO			true		
SUB_NAME	String	48	SUB_NAME	SUB_NAME			true		
CAME_FROM	String	9	CAME_FROM	CAME_FROM			true		
TAXABILITY	Integer	4	TAXABILITY	TAXABILITY			true	10	0
TRA	String	6	TRA	TRA			true		
LAND	Integer	4	LAND	LAND			true	10	0
STRUCTURE	Integer	4	STRUCTURE	STRUCTURE			true	10	0
OWNER1_LAST_NAME	String	43	OWNER1_LAST_NAME	OWNER1_LAST_NAME			true		
OWNER1_FIRST_NAME	String	12	OWNER1_FIRST_NAME	OWNER1_FIRST_NAME			true		
OWNER1_MID_NAME	String	12	OWNER1_MID_NAME	OWNER1_MID_NAME			true		
OWNER2_LAST_NAME	String	43	OWNER2_LAST_NAME	OWNER2_LAST_NAME			true		
OWNER2_FIRST_NAME	String	12	OWNER2_FIRST_NAME	OWNER2_FIRST_NAME			true		
OWNER2_MID_NAME	String	12	OWNER2_MID_NAME	OWNER2_MID_NAME			true		

OWNER3_LAST_NAME	String	43	OWNER3_LAST_NAME	OWNER3_LAST_NAME			true		
OWNER3_FIRST_NAME	String	12	OWNER3_FIRST_NAME	OWNER3_FIRST_NAME			true		
OWNER3_MID_NAME	String	12	OWNER3_MID_NAME	OWNER3_MID_NAME			true		

Parcels_CityOwned - FeatureClass

Name Parcels_CityOwned
ShapeType Polygon
FeatureType Simple
AliasName City Owned Parcels
HasM false
HasZ false
HasAttachments false
Description City Owned Parcels

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA	Double	8	AREA	AREA			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
APN	Integer	4	APN	APN			true	10	0
STRUCT_NUM	Integer	4	STRUCT_NUM	STRUCT_NUM			true	10	0
CLSTRUCT	Integer	4	CLSTRUCT	CLSTRUCT			true	10	0
CONTROL	Integer	4	CONTROL	CONTROL			true	10	0
APN_MULT	SmallInteger	2	APN_MULT	APN_MULT			true	5	0
PHASE_NUM	SmallInteger	2	PHASE_NUM	PHASE_NUM			true	5	0
LOT_ALPHA	String	5	LOT_ALPHA	LOT_ALPHA			true		
MAP_ALPHA	String	14	MAP_ALPHA	MAP_ALPHA			true		
AUTO_YEAR	SmallInteger	2	AUTO_YEAR	AUTO_YEAR			true	5	0
AUTO_TYPE	String	4	AUTO_TYPE	AUTO_TYPE			true		
ACCEPT_FY	String	5	ACCEPT_FY	ACCEPT_FY			true		

SITUS_ALP	String	5	SITUS_ALP	SITUS_ALP			true		
SITUS_NUM	Integer	4	SITUS_NUM	SITUS_NUM			true	10	0
SITUS_FRAC	String	3	SITUS_FRAC	SITUS_FRAC			true		
SITUS_UNIT	String	10	SITUS_UNIT	SITUS_UNIT			true		
SITUS_DIR	String	1	SITUS_DIR	SITUS_DIR			true		
SITUS_ST	String	30	SITUS_ST	SITUS_ST			true		
SITUS_SUF	String	2	SITUS_SUF	SITUS_SUF			true		
SITUS_STSU	String	30	SITUS_STSU	SITUS_STSU			true		
SITUS_CITY	String	30	SITUS_CITY	SITUS_CITY			true		
SITUS_ZIP	String	10	SITUS_ZIP	SITUS_ZIP			true		
SITUS_FUL	String	60	SITUS_FUL	SITUS_FUL			true		
CON2TRW	SmallInteger	2	CON2TRW	CON2TRW			true	5	0
FLAG_CITY	SmallInteger	2	FLAG_CITY	FLAG_CITY			true	5	0
CITY_PROP	SmallInteger	2	CITY_PROP	CITY_PROP			true	5	0
CPROP_USE	String	25	CPROP_USE	CPROP_USE			true		
SPEC_PLAN	String	8	SPEC_PLAN	SPEC_PLAN			true		
COR_ZONE	String	10	COR_ZONE	COR_ZONE			true		
COR_GPLAN	String	6	COR_GPLAN	COR_GPLAN			true		
COR_LANDU	String	6	COR_LANDU	COR_LANDU			true		
LITEFEE_TO	Double	8	LITEFEE_TO	LITEFEE_TO			true	38	8
ZIP_CODE1	Integer	4	ZIP_CODE1	ZIP_CODE1			true	10	0
REGION_NAM	String	24	REGION_NAM	REGION_NAM			true		
MAINT_DIST	String	10	MAINT_DIST	MAINT_DIST			true		
CONST_DIST	String	10	CONST_DIST	CONST_DIST			true		
LIGHT_DIST	String	10	LIGHT_DIST	LIGHT_DIST			true		
ASMT_DIST	String	15	ASMT_DIST	ASMT_DIST			true		

CENSUS_TR	String	7	CENSUS_TR	CENSUS_TR			true		
BLKGROUP	String	8	BLKGROUP	BLKGROUP			true		
TAZ	String	10	TAZ	TAZ			true		
REDEVNAME	String	25	REDEVNAME	REDEVNAME			true		
CDBG	SmallInteger	2	CDBG	CDBG			true	5	0
FHSZ	String	1	FHSZ	FHSZ			true		
PARCSTRUCT	Integer	4	PARCSTRUCT	PARCSTRUCT			true	10	0
YR_BUILT	String	4	YR_BUILT	YR_BUILT			true		
DECADE	SmallInteger	2	DECADE	DECADE			true	5	0
NAMEALIAS	String	30	NAMEALIAS	NAMEALIAS			true		
ASMT_NUM	Double	8	ASMT_NUM	ASMT_NUM			true	38	8
CONVY_NUM	Integer	4	CONVY_NUM	CONVY_NUM			true	10	0
CONVEY_MO	String	2	CONVEY_MO	CONVEY_MO			true		
CONVY_YR	String	4	CONVY_YR	CONVY_YR			true		
RPUSE_CODE	String	2	RPUSE_CODE	RPUSE_CODE			true		
PUI_CODE	String	7	PUI_CODE	PUI_CODE			true		
ASMT_YEAR	String	4	ASMT_YEAR	ASMT_YEAR			true		
BUS_CODE	String	3	BUS_CODE	BUS_CODE			true		
MAIL_NAME	String	43	MAIL_NAME	MAIL_NAME			true		
MAIL_ADD	String	26	MAIL_ADD	MAIL_ADD			true		
M_CITY_ST	String	26	M_CITY_ST	M_CITY_ST			true		
MAIL_ZIP	Double	8	MAIL_ZIP	MAIL_ZIP			true	38	8
COSITUS	String	6	COSITUS	COSITUS			true		
COSITUSSUF	String	1	COSITUSSUF	COSITUSSUF			true		
COSITUSDIR	String	1	COSITUSDIR	COSITUSDIR			true		
COSTNAME	String	18	COSTNAME	COSTNAME			true		

COSTSUF	String	3	COSTSUF	COSTSUF			true		
COUNITNUM	String	4	COUNITNUM	COUNITNUM			true		
COZIPCODE	Double	8	COZIPCODE	COZIPCODE			true	38	8
CITY_NAME	String	13	CITY_NAME	CITY_NAME			true		
ASMT_DESC	String	50	ASMT_DESC	ASMT_DESC			true		
TAX_CODE	Integer	4	TAX_CODE	TAX_CODE			true	10	0
TRA	String	6	TRA	TRA			true		
REC_TYPE	String	2	REC_TYPE	REC_TYPE			true		
REC_BOOK	String	3	REC_BOOK	REC_BOOK			true		
REC_PAGE	String	3	REC_PAGE	REC_PAGE			true		
CO_CODE	String	2	CO_CODE	CO_CODE			true		
COLOTTYPE	String	1	COLOTTYPE	COLOTTYPE			true		
COLOT	String	4	COLOT	COLOT			true		
COBLKNUM	String	3	COBLKNUM	COBLKNUM			true		
PORT_FLAG	String	1	PORT_FLAG	PORT_FLAG			true		
COSUBDIV	String	48	COSUBDIV	COSUBDIV			true		
ACRES	Double	8	ACRES	ACRES			true	38	8
MAILOWNER	String	43	MAILOWNER	MAILOWNER			true		
UniqueID	String	30	UniqueID	UniqueID			true		
SchoolDistrict	String	50	SchoolDistrict	SchoolDistrict			true		
WaterDistrict	String	50	WaterDistrict	WaterDistrict			true		
DrainFee	String	50	DrainFee	DrainFee			true		
Redevelopment	String	50	Redevelopment	Redevelopment			true		

Parcels_Flagged_Exempt - FeatureClass

Name	Parcels_Flagged_Exempt
ShapeType	Polygon
FeatureType	Simple
AliasName	Parcels Flagged Exempt
HasM	false
HasZ	false
HasAttachments	false
Description	Parcels Flagged Exempt

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
APN	String	9	APN	APN			true		
FLAG	String	2	FLAG	FLAG			true		
MAIL_TO_NA	String	43	MAIL_TO_NA	MAIL_TO_NA			true		
MAIL_TO_ST	String	37	MAIL_TO_ST	MAIL_TO_ST			true		
MAIL_TO_CI	String	31	MAIL_TO_CI	MAIL_TO_CI			true		
MAIL_TO_ZI	Double	8	MAIL_TO_ZI	MAIL_TO_ZI			true	10	0
HOUSE_NO	Double	8	HOUSE_NO	HOUSE_NO			true	10	0
DIR	String	1	DIR	DIR			true		
STREET	String	18	STREET	STREET			true		
SUFFIX	String	3	SUFFIX	SUFFIX			true		
CITY	String	26	CITY	CITY			true		
ZIP	Double	8	ZIP	ZIP			true	10	0
HOUSE_SUFF	Double	8	HOUSE_SUFF	HOUSE_SUFF			true	10	0

UNIT	String	4	UNIT	UNIT			true		
REALUSE	String	2	REALUSE	REALUSE			true		
PRIMARY_CO	String	1	PRIMARY_CO	PRIMARY_CO			true		
SECONDARY_	Double	8	SECONDARY_	SECONDARY_			true	10	0
MULTI_CODE	String	1	MULTI_CODE	MULTI_CODE			true		
TRACT	Double	8	TRACT	TRACT			true	10	0
ACRE	Double	8	ACRE	ACRE			true	38	8
RECORDERS_	String	2	RECORDERS_	RECORDERS_			true		
RECORD_BOO	Double	8	RECORD_BOO	RECORD_BOO			true	10	0
RECORD_PAG	Double	8	RECORD_PAG	RECORD_PAG			true	10	0
CNTY_CODE	String	2	CNTY_CODE	CNTY_CODE			true		
LOT_TYPE	String	1	LOT_TYPE	LOT_TYPE			true		
LOT	String	4	LOT	LOT			true		
BLOCK_NO	String	3	BLOCK_NO	BLOCK_NO			true		
SUB_NAME	String	48	SUB_NAME	SUB_NAME			true		
CAME_FROM	String	9	CAME_FROM	CAME_FROM			true		
TAXABILITY	Double	8	TAXABILITY	TAXABILITY			true	10	0
TRA	String	6	TRA	TRA			true		
LAND	Double	8	LAND	LAND			true	10	0
STRUCTURE	Double	8	STRUCTURE	STRUCTURE			true	10	0
OWNER1_LAS	String	43	OWNER1_LAS	OWNER1_LAS			true		
OWNER1_FIR	String	12	OWNER1_FIR	OWNER1_FIR			true		
OWNER1_MID	String	12	OWNER1_MID	OWNER1_MID			true		
OWNER2_LAS	String	43	OWNER2_LAS	OWNER2_LAS			true		
OWNER2_FIR	String	12	OWNER2_FIR	OWNER2_FIR			true		
OWNER2_MID	String	12	OWNER2_MID	OWNER2_MID			true		

OWNER3_LAS	String	43	OWNER3_LAS	OWNER3_LAS			true		
OWNER3_FIR	String	12	OWNER3_FIR	OWNER3_FIR			true		
OWNER3_MID	String	12	OWNER3_MID	OWNER3_MID			true		

Parcels_RCFC_District - FeatureClass

Name	Parcels_RCFC_District
ShapeType	Polygon
FeatureType	Simple
AliasName	RCFC District Owned Parcels
HasM	false
HasZ	false
HasAttachments	false
Description	Riverside County Flood Control Owned Parcels

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ID	Double	8	ID	ID			true	38	8
PARCEL_NUMBER	String	15	PARCEL_NUMBER	PARCEL_NUMBER			true		
COUNTY_APN	String	40	COUNTY_APN	COUNTY_APN			true		
ACREAGE	Double	8	ACREAGE	ACREAGE			true	38	8
SQUARE_FT	Double	8	SQUARE_FT	SQUARE_FT			true	38	8
RIGHTS_ACQUIRED	String	50	RIGHTS_ACQUIRED	RIGHTS_ACQUIRED			true		
RIGHTS_GIVEN	String	50	RIGHTS_GIVEN	RIGHTS_GIVEN			true		
PQP	Double	8	PQP	PQP			true	38	8
DESCRIPTION	String	4000	DESCRIPTION	DESCRIPTION			true		
LAST_UPDATED_BY	String	10	LAST_UPDATED_BY	LAST_UPDATED_BY			true		
LAST_UPDATED_DATE	Date	36	LAST_UPDATED_DATE	LAST_UPDATED_DATE			true		
ROWNOTES	String	4000	ROWNOTES	ROWNOTES			true		
COMMUNITY	String	35	COMMUNITY	COMMUNITY			true		

RIGHTS_CURRENT	String	50	RIGHTS_CURRENT	RIGHTS_CURRENT			true		

RCFC_Zones - FeatureClass

Name	RCFC_Zones
ShapeType	Polygon
FeatureType	Simple
AliasName	Riverside County Flood Control Zones
HasM	false
HasZ	false
HasAttachments	false
Description	Riverside County Flood Control Zones

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ZONE_LABEL	String	254	ZONE_LABEL	ZONE_LABEL			true		
AREA_NAME	String	80	AREA_NAME	AREA_NAME			true		
NAME_ABRV	String	20	NAME_ABRV	NAME_ABRV			true		
SOURCE	String	35	SOURCE	SOURCE			true		
ZONE_NO	String	6	ZONE_NO	ZONE_NO			true		
ACRES	Double	8	ACRES	ACRES			true	38	8
SQ_MILES	Double	8	SQ_MILES	SQ_MILES			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
PID	Double	8	PID	PID			true	38	8
Source_Code	String	50	Source_Code	Source_Code			true		

Reports - FeatureClass

Name	Reports
ShapeType	Polygon
FeatureType	Simple
AliasName	Reports
HasM	false
HasZ	false
HasAttachments	false
Description	This layers purpose is to identify spatially where reports exist.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ID	Integer	4	ID	ID			true	10	0
Name	String	50	Name	Name			true		
PDF_Name	String	50	PDF Name	PDF_Name			true		
Author	String	50	Author	Author			true		
Date	String	50	Date	Date			true		
Source	String	50	Source	Source			true		
Path	String	100	Path	Path			true		

TRANS_ROAD_FOREMAN_DISTRICTS - FeatureClass

Name	TRANS_ROAD_FOREMAN_DISTRICTS
ShapeType	Polygon
FeatureType	Simple
AliasName	TRANS_ROAD_FOREMAN_DISTRICTS
HasM	false
HasZ	false
HasAttachments	false
Description	County maintained road districts

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DISTRICT_NAME	String	32	DISTRICT_NAME	DISTRICT_NAME			true		
SUPERVISOR	String	20	SUPERVISOR	SUPERVISOR			true		
DISTRICT_NUMBER	SmallInteger	2	DISTRICT_NUMBER	DISTRICT_NUMBER			true	5	0
SHAPE_STArea__	Double	8	SHAPE_STArea__	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	SHAPE_STLength__	SHAPE_STLength__			false	38	8

TRANS_ROAD_YARDS_MAT_SITES - FeatureClass

Name	TRANS_ROAD_YARDS_MAT_SITES
ShapeType	Point
FeatureType	Simple
AliasName	TRANS_ROAD_YARDS_MAT_SITES
HasM	false
HasZ	false
HasAttachments	false
Description	This Feature Class was created by Riverside County Transportation Department (RCDT).

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DISTRICT	SmallInteger	2	DISTRICT	DISTRICT			true	5	0
FACILITY_NAME	String	70	FACILITY_NAME	FACILITY_NAME			true		
TYPE	String	50	TYPE	TYPE			true		
WATERSHED	String	50	WATERSHED	WATERSHED			true		
SUPERVISOR	String	50	SUPERVISOR	SUPERVISOR			true		
NUMBER	SmallInteger	2	NUMBER	NUMBER			true	5	0
STREET_NAME	String	50	STREET_NAME	STREET_NAME			true		
STREET_TYPE	String	10	STREET_TYPE	STREET_TYPE			true		
CITY	String	30	CITY	CITY			true		
PHONE_NUMBER	String	25	PHONE_NUMBER	PHONE_NUMBER			true		
FAX_NUMBER	String	25	FAX_NUMBER	FAX_NUMBER			true		

SITE_MAPS	String	50	SITE_MAPS	SITE_MAPS			true		
POLLUTION_PREVENTION_PLAN	String	50	POLLUTION_PREVENTION_PLAN	POLLUTION_PREVENTION_PLAN			true		
ANNUAL_ASSESMENT	String	10	ANNUAL_ASSESMENT	ANNUAL_ASSESMENT			true		
ANNUAL_ASSESMENT_DATE	Date	36	ANNUAL_ASSESMENT_DATE	ANNUAL_ASSESMENT_DATE			true		
ZIPCODE	Integer	4	ZIPCODE	ZIPCODE			true	10	0
LATITUDE	Double	8	LATITUDE	LATITUDE			true	38	8
LONGITUDE	Double	8	LONGITUDE	LONGITUDE			true	38	8

TRANS_ROADBOOK_PAGE_INDEX - FeatureClass

Name	TRANS_ROADBOOK_PAGE_INDEX
ShapeType	Polygon
FeatureType	Simple
AliasName	TRANS_ROADBOOK_PAGE_INDEX
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's road book page index.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
PAGE_NUMBER	String	4	PAGE_NUMBER	PAGE_NUMBER			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Vacant - FeatureClass

Name	Vacant
ShapeType	Polygon
FeatureType	Simple
AliasName	Vacant
HasM	false
HasZ	false
HasAttachments	false
Description	Vacant land within Riverside County

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Landuse	String	35	Landuse	Landuse			true		
APN	String	9	APN	APN			true		
Comments	String	65	Comments	Comments			true		
Zoning	String	30	Zoning	Zoning			true		
UniqueID	String	30	UniqueID	UniqueID			true		

CW_Data - FeatureDataset

Name	CW_Data
Description	Featureclasses Containing Riverside County Wide Data

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Agpreserve - FeatureClass

Name	Agpreserve
ShapeType	Polygon
FeatureType	Simple
AliasName	Agpreserve
HasM	false
HasZ	false
HasAttachments	false
Description	Riverside County's Agriculture Preserves.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
STATUS	String	1	STATUS	STATUS			true		
AP_NAME	String	36	AP_NAME	AP_NAME			true		
AP_NUMBER	String	3	AP_NUMBER	AP_NUMBER			true		
MAP_NUMBER	String	4	MAP_NUMBER	MAP_NUMBER			true		
ADOPTED_DATE	Date	36	ADOPTED_DATE	ADOPTED_DATE			true		
CROP_TYPE	String	16	CROP_TYPE	CROP_TYPE			true		
NONR_DATE	Date	36	NONR_DATE	NONR_DATE			true		

ACTIVE	String	2	ACTIVE	ACTIVE			true		
AMENDMENT_NO	String	5	AMENDMENT_NO	AMENDMENT_NO			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

AIA - FeatureClass

Name	AIA
ShapeType	Polygon
FeatureType	Simple
AliasName	AIA
HasM	false
HasZ	false
HasAttachments	false
Description	The Airport Influence Area is used for planning purposes and for disclosure purposes relating to real estate.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NAME	String	50	NAME	NAME			true		
LOC_ID	String	5	LOC_ID	LOC_ID			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

AirportCompatibilityZones - FeatureClass

Name	AirportCompatibilityZones
ShapeType	Polygon
FeatureType	Simple
AliasName	AirportCompatibilityZones
HasM	false
HasZ	false
HasAttachments	false
Description	This layer shows all adopted compatibility zones for airports in or around Riverside County.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
LOC_ID	String	5	LOC_ID	LOC_ID			true		
NAME	String	50	NAME	NAME			true		
ZONES	String	15	ZONES	ZONES			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Airports - FeatureClass

Name	Airports
ShapeType	Polygon
FeatureType	Simple
AliasName	Airports
HasM	false
HasZ	false
HasAttachments	false
Description	The Airports layer shows the boundary of the airport property.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NAME	String	50	NAME	NAME			true		
LOC_ID	String	5	LOC_ID	LOC_ID			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

AmphibianSurvey - FeatureClass

Name	AmphibianSurvey
ShapeType	Polygon
FeatureType	Simple
AliasName	AmphibianSurvey
HasM	false
HasZ	false
HasAttachments	false
Description	MSHCP Amphibian Species Survey Areas

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AMPHIB_CODE	Integer	4	AMPHIB_CODE	AMPHIB_CODE			true	10	0
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8
Code_Desc	String	50	Code_Desc	Code_Desc			true		

AreaPlanBoundary - FeatureClass

Name	AreaPlanBoundary
ShapeType	Polygon
FeatureType	Simple
AliasName	AreaPlanBoundary
HasM	false
HasZ	false
HasAttachments	false
Description	This is the Area Plan Boundary for the Riverside County Integrated Plan (RCIP).

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AP_CODE	String	2	AP_CODE	AP_CODE			true		
NAME	String	100	NAME	NAME			true		
ACRES	Double	8	ACRES	ACRES			true	38	8
SQ_MILES	Double	8	SQ_MILES	SQ_MILES			true	38	8
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

AreaPlanSubunits - FeatureClass

Name	AreaPlanSubunits
ShapeType	Polygon
FeatureType	Simple
AliasName	AreaPlanSubunits
HasM	false
HasZ	false
HasAttachments	false
Description	Area plan subunits for the MSHCP Criteria Area.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
SUBUNIT	String	45	SUBUNIT	SUBUNIT			true		
AREAPLAN	String	100	AREAPLAN	AREAPLAN			true		
UNITNUM	Integer	4	UNITNUM	UNITNUM			true	10	0
ACRES	Double	8	ACRES	ACRES			true	38	8
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

BurrowingOwlSurvey - FeatureClass

Name	BurrowingOwlSurvey
ShapeType	Polygon
FeatureType	Simple
AliasName	BurrowingOwlSurvey
HasM	false
HasZ	false
HasAttachments	false
Description	MSHCP Burrowing Owl Survey Area

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
BUOW_CODE	Integer	4	BUOW_CODE	BUOW_CODE			true	10	0
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8
Code_Desc	String	50	Code_Desc	Code_Desc			true		

CellGroups - FeatureClass

Name	CellGroups
ShapeType	Polygon
FeatureType	Simple
AliasName	CellGroups
HasM	false
HasZ	false
HasAttachments	false
Description	MSHCP Cell Groups

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
CELLGROUP	String	10	CELLGROUP	CELLGROUP			true		
AREAPLAN	String	100	AREAPLAN	AREAPLAN			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Centerline - FeatureClass

Name	Centerline
ShapeType	Polyline
FeatureType	Simple
AliasName	Centerline
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of line features represent Riverside County's recorded street centerlines.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
STNAME	String	41	STNAME	STNAME			true		
TYPE	String	3	TYPE	TYPE	CENTERLINE_MAINT_CODE_NEW		false		
GENPLANTYPE	SmallInteger	2	GENPLANTYPE	GENPLANTYPE		0	false	5	0
DIRECTION	SmallInteger	2	DIRECTION	DIRECTION		1	false	5	0
NAMEID	Integer	4	NAMEID	NAMEID		0	false	10	0
RDNUMBER	String	10	RDNUMBER	RDNUMBER			false		
SEGNUMBER	SmallInteger	2	SEGNUMBER	SEGNUMBER		0	false	5	0
FLAG	String	1	FLAG	FLAG		N	false		
L_F_ADD	String	6	L_F_ADD	L_F_ADD			false		
L_T_ADD	String	6	L_T_ADD	L_T_ADD			false		
R_F_ADD	String	6	R_F_ADD	R_F_ADD			false		
R_T_ADD	String	6	R_T_ADD	R_T_ADD			false		

PRE_DIR	String	2	PRE_DIR	PRE_DIR			false		
STREET_NAME	String	30	STREET_NAME	STREET_NAME			false		
STREET_TYPE	String	4	STREET_TYPE	STREET_TYPE			false		
SUF_DIR	String	2	SUF_DIR	SUF_DIR			false		
TRACT	String	12	TRACT	TRACT			false		
MODIFIED	Date	36	MODIFIED	MODIFIED			true		
CREATED	Date	36	CREATED	CREATED			true		
SOURCE_NOTES	String	150	SOURCE_NOTES	SOURCE_NOTES			false		
FULL_NAME	String	41	FULL_NAME	FULL_NAME			false		
AREA_PLAN_ABBREVIATION	String	5	AREA_PLAN_ABBREVIATION	AREA_PLAN_ABBREVIATION			false		
SUBROUTE	String	3	SUBROUTE	SUBROUTE			false		
ROUTE_NAME	String	51	ROUTE_NAME	ROUTE_NAME			false		
ROUTE_DIR1	String	3	ROUTE_DIR1	ROUTE_DIR1			false		
ROUTE_ALT1	String	55	ROUTE_ALT1	ROUTE_ALT1			false		
ROUTE_DIR2	String	3	ROUTE_DIR2	ROUTE_DIR2			false		
ROUTE_ALT2	String	55	ROUTE_ALT2	ROUTE_ALT2			false		
BUILD_PRIORITY	String	2	BUILD_PRIORITY	BUILD_PRIORITY		UL	false		
LINE_LINK	String	70	LINE_LINK	LINE_LINK			false		
CL_ID	Integer	4	CL_ID	CL_ID			true	10	0
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Cities - FeatureClass

Name	Cities
ShapeType	Polygon
FeatureType	Simple
AliasName	Cities
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's Incorporated City Boundaries.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
CITYNAME	String	24	CITYNAME	CITYNAME			false		
CITY_FIPS	String	5	CITY_FIPS	CITY_FIPS			false		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

CityAnnexations - FeatureClass

Name	CityAnnexations
ShapeType	Polygon
FeatureType	Simple
AliasName	CityAnnexations
HasM	false
HasZ	false
HasAttachments	false
Description	City Annexations

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
CITYNAME	String	24	CITYNAME	CITYNAME			false		
ANNEXATION	SmallInteger	2	ANNEXATION	ANNEXATION			false	5	0
LAFCO_NUM	String	14	LAFCO_NUM	LAFCO_NUM			false		
RECORDED_DATE	Date	36	RECORDED_DATE	RECORDED_DATE			true		
INST_NUM	Integer	4	INST_NUM	INST_NUM			false	10	0
CITY_FIPS	String	5	CITY_FIPS	CITY_FIPS			false		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

CityAnnexProposed - FeatureClass

Name	CityAnnexProposed
ShapeType	Polygon
FeatureType	Simple
AliasName	CityAnnexProposed
HasM	false
HasZ	false
HasAttachments	false
Description	Proposed City Annexations

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ANNEXATION	SmallInteger	2	ANNEXATION	ANNEXATION			false	5	0
LAFCO_NUM	String	14	LAFCO_NUM	LAFCO_NUM			false		
RECORDED_DATE	Date	36	RECORDED_DATE	RECORDED_DATE			true		
PROPOSED_CITY	String	20	PROPOSED_CITY	PROPOSED_CITY			false		
ACTION	String	15	ACTION	ACTION			false		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

CitySpheres - FeatureClass

Name	CitySpheres
ShapeType	Polygon
FeatureType	Simple
AliasName	CitySpheres
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon feature represents Riverside County's City Sphere of Influence.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
SPHERENAME	String	24	SPHERENAME	SPHERENAME			false		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Counties - FeatureClass

Name	Counties
ShapeType	Polygon
FeatureType	Simple
AliasName	Counties
HasM	false
HasZ	false
HasAttachments	false
Description	Riverside County and Surrounding Counties

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NAME	String	32	NAME	NAME			true		
STATE_NAME	String	25	STATE_NAME	STATE_NAME			true		
CNTY_FIPS	String	3	CNTY_FIPS	CNTY_FIPS			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

CriteriaAreas - FeatureClass

Name	CriteriaAreas
ShapeType	Polygon
FeatureType	Simple
AliasName	CriteriaAreas
HasM	false
HasZ	false
HasAttachments	false
Description	This is the dissolved version of the Criteria Cells adopted by the BOS on 6/17/2003.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
COLLAPSE	String	10	COLLAPSE	COLLAPSE			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

CriteriaAreaSpeciesSurvey - FeatureClass

Name	CriteriaAreaSpeciesSurvey
ShapeType	Polygon
FeatureType	Simple
AliasName	CriteriaAreaSpeciesSurvey
HasM	false
HasZ	false
HasAttachments	false
Description	Criteria Area Species Survey Areas

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ACRES	Double	8	ACRES	ACRES			true	38	8
IDNUM	Integer	4	IDNUM	IDNUM			true	10	0
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8
Areas_Desc	String	250	Areas_Desc	Areas_Desc			true		

CriteriaCells - FeatureClass

Name	CriteriaCells
ShapeType	Polygon
FeatureType	Simple
AliasName	CriteriaCells
HasM	false
HasZ	false
HasAttachments	false
Description	Criteria Area Cells for the MSHCP

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
QUARTSECT_	Double	8	QUARTSECT_	QUARTSECT_			true	38	8
MSHCPSECTI	Double	8	MSHCPSECTI	MSHCPSECTI			true	38	8
TOWNRANGE	String	40	TOWNRANGE	TOWNRANGE			true		
SECTION_	String	10	SECTION_	SECTION_			true		
QUARTSECT	String	40	QUARTSECT	QUARTSECT			true		
LABEL	Integer	4	LABEL	LABEL			true	10	0
QSEC_ACRES	Double	8	QSEC_ACRES	QSEC_ACRES			true	38	8
AREAPLAN	String	32	AREAPLAN	AREAPLAN			true		
CL_IDNUM	Integer	4	CL_IDNUM	CL_IDNUM			true	10	0
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

CSA - FeatureClass

Name	CSA
ShapeType	Polygon
FeatureType	Simple
AliasName	CSA
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's service areas.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
CSA_NUMBER	SmallInteger	2	CSA_NUMBER	CSA_NUMBER			false	5	0
NAME	String	32	NAME	NAME			false		
SUBZONE	String	1	SUBZONE	SUBZONE			false		
ST_LIGHTING	String	1	ST_LIGHTING	ST_LIGHTING			false		
ST_SWEEPING	String	1	ST_SWEEPING	ST_SWEEPING			false		
PARK_REC	String	1	PARK_REC	PARK_REC			false		
FIRE_PROTECT	String	1	FIRE_PROTECT	FIRE_PROTECT			false		
SEWER	String	1	SEWER	SEWER			false		
WATER	String	1	WATER	WATER			false		
TRASH	String	1	TRASH	TRASH			false		
ROAD_MAINT	String	1	ROAD_MAINT	ROAD_MAINT			false		
FLOOD_CTRL	String	1	FLOOD_CTRL	FLOOD_CTRL			false		
POLICE	String	1	POLICE	POLICE			false		

DRAINAGE_CTRL	String	1	DRAINAGE_CTRL	DRAINAGE_CTRL			false		
LIBRARY	String	1	LIBRARY	LIBRARY			false		
LANDSCAPING	String	1	LANDSCAPING	LANDSCAPING			false		
SPHERE_NUMBER	Double	8	SPHERE_NUMBER	SPHERE_NUMBER			false	38	8
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

DemographicProjections - FeatureClass

Name	DemographicProjections
ShapeType	Polygon
FeatureType	Simple
AliasName	DemographicProjections
HasM	false
HasZ	false
HasAttachments	false
Description	Population, Housing and Employment Projections by Partial Census Tracts (PCT).

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
PCT_JOINID	String	16	PCT_JOINID	PCT_JOINID			true		
TRACT2000	Integer	4	TRACT2000	TRACT2000			true	10	0
PLACE2005	Integer	4	PLACE2005	PLACE2005			true	10	0
PLACE_NAME	String	255	PLACE_NAME	PLACE_NAME			true		
NCITY	Integer	4	NCITY	NCITY			true	10	0
COG05	String	255	COG05	COG05			true		
CT00	Integer	4	CT00	CT00			true	10	0
CITY05	Integer	4	CITY05	CITY05			true	10	0
H00PT	Integer	4	H00PT	H00PT			true	10	0
H05PT	Integer	4	H05PT	H05PT			true	10	0
H10PT	Integer	4	H10PT	H10PT			true	10	0
H15PT	Integer	4	H15PT	H15PT			true	10	0
H20PT	Integer	4	H20PT	H20PT			true	10	0

H25PT	Integer	4	H25PT	H25PT			true	10	0
H30PT	Integer	4	H30PT	H30PT			true	10	0
H35PT	Integer	4	H35PT	H35PT			true	10	0
P00PT	Integer	4	P00PT	P00PT			true	10	0
P05PT	Integer	4	P05PT	P05PT			true	10	0
P10PT	Integer	4	P10PT	P10PT			true	10	0
P15PT	Integer	4	P15PT	P15PT			true	10	0
P20PT	Integer	4	P20PT	P20PT			true	10	0
P25PT	Integer	4	P25PT	P25PT			true	10	0
P30PT	Integer	4	P30PT	P30PT			true	10	0
P35PT	Integer	4	P35PT	P35PT			true	10	0
EM05PT	Integer	4	EM05PT	EM05PT			true	10	0
EM10PT	Integer	4	EM10PT	EM10PT			true	10	0
EM15PT	Integer	4	EM15PT	EM15PT			true	10	0
EM20PT	Integer	4	EM20PT	EM20PT			true	10	0
EM25PT	Integer	4	EM25PT	EM25PT			true	10	0
EM30PT	Integer	4	EM30PT	EM30PT			true	10	0
EM35PT	Integer	4	EM35PT	EM35PT			true	10	0
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

DesertTortoiseAreas - FeatureClass

Name	DesertTortoiseAreas
ShapeType	Polygon
FeatureType	Simple
AliasName	DesertTortoiseAreas
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's desert tortoise area.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
UNIT_NAME	String	16	UNIT_NAME	UNIT_NAME			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8
Code_Desc	String	50	Code_Desc	Code_Desc			true		

DrainageFee - FeatureClass

Name	DrainageFee
ShapeType	Polygon
FeatureType	Simple
AliasName	DrainageFee
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's drainage fee areas.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
MAPNAME	String	40	MAPNAME	MAPNAME			true		
FEE	Integer	4	FEE	FEE			true	10	0
PLAN_COST	Double	8	PLAN_COST	PLAN_COST			true	38	8
ACRES	Double	8	ACRES	ACRES			true	38	8
AMEND_NO	Double	8	AMEND_NO	AMEND_NO			true	38	8
ORIG_ADOPT	Date	36	ORIG_ADOPT	ORIG_ADOPT			true		
EFFECTIVE_DATE	Date	36	EFFECTIVE_DATE	EFFECTIVE_DATE			true		
Shape_STArea__	Double	8	STArea()	Shape_STArea__			false	38	8
Shape_STLength__	Double	8	STLength()	Shape_STLength__			false	38	8

Farmland - FeatureClass

Name	Farmland
ShapeType	Polygon
FeatureType	Simple
AliasName	Farmland
HasM	false
HasZ	false
HasAttachments	false
Description	The conversion of farmland and grazing land, and to provide maps and data to local government and the public

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
FARMLAND_TYPE	String	1	FARMLAND TYPE	FARMLAND_TYPE			false		
FARMLAND_DESCRIPTION	String	40	FARMLAND DESCRIPTION	FARMLAND_DESCRIPTION			false		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Faults - FeatureClass

Name	Faults
ShapeType	Polyline
FeatureType	Simple
AliasName	Faults
HasM	false
HasZ	false
HasAttachments	false
Description	County Faults/Fault Zones (Per Riverside County General Plan 10/2003)

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
FAULT_NAME	String	50	NAME	FAULT_NAME			false		
ACTIVITY	String	35	ACTIVITY	ACTIVITY			false		
SOURCE	String	100	SOURCE	SOURCE			false		
LTYPE	String	35	LTYPE	LTYPE			false		
AUTHORITY	String	25	AUTHORITY	AUTHORITY			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

FaultZones - FeatureClass

Name	FaultZones
ShapeType	Polygon
FeatureType	Simple
AliasName	FaultZones
HasM	false
HasZ	false
HasAttachments	false
Description	County Faults/Fault Zones (Per Riverside County General Plan 10/2003).

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
FAULTZONE	String	50	FAULTZONE	FAULTZONE			true		
SOURCE	String	50	SOURCE	SOURCE			true		
AUTHORITY	String	25	AUTHORITY	AUTHORITY			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

FloodDistrict - FeatureClass

Name	FloodDistrict
ShapeType	Polygon
FeatureType	Simple
AliasName	FloodDistrict
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's flood districts.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NAME	String	40	NAME	NAME			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

GeneralPlanLanduse - FeatureClass

Name	GeneralPlanLanduse
ShapeType	Polygon
FeatureType	Simple
AliasName	GeneralPlanLanduse
HasM	false
HasZ	false
HasAttachments	false
Description	General Plan Landuse

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
LANDUSE	String	16	LANDUSE	LANDUSE			true		
LANDUSE_OVERLAY	String	16	LANDUSE OVERLAY	LANDUSE_OVERLAY			true		
FOUNDATION_COMPONENT	String	40	FOUNDATION COMPONENT	FOUNDATION_COMPONENT			true		
ACRES	Double	8	ACRES	ACRES		0	true	38	8
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
LANDUSE_ID	Integer	4	LANDUSE_ID	LANDUSE_ID	GP_LANDUSE_Rules		true	10	0
LANDUSE_OVERRIDE	Blob	0	LANDUSE_OVERRIDE	LANDUSE_OVERRIDE			true		
OVERLAY_ID	Integer	4	OVERLAY_ID	OVERLAY_ID	GP_OVERLAY_Rules		true	10	0
OVERLAY_OVERRIDE	Blob	0	OVERLAY_OVERRIDE	OVERLAY_OVERRIDE			true		
FOUNDATION_ID	Integer	4	FOUNDATION_ID	FOUNDATION_ID	GP_FOUNDATION_Rules		true	10	0

FOUNDATION_OVERRIDE	Blob	0	FOUNDATION_OVERRIDE	FOUNDATION_OVERRIDE			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

HighFire - FeatureClass

Name	HighFire
ShapeType	Polygon
FeatureType	Simple
AliasName	HighFire
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's high probability areas for fire.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
HIGHFIRE	String	1	HIGHFIRE	HIGHFIRE			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Highways - FeatureClass

Name	Highways
ShapeType	Polyline
FeatureType	Simple
AliasName	Highways
HasM	false
HasZ	false
HasAttachments	false
Description	A highways data layer based off TLMA.STREETS.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
HWY_TYPE	String	25	TYPE	HWY_TYPE			true		
HWY_NUM	String	5	HWY_NUM	HWY_NUM			true		
SPEED	SmallInteger	2	SPEED	SPEED			true	5	0
ALIAS	String	50	ALIAS	ALIAS			true		
DIRECTION	String	5	DIRECTION	DIRECTION			true		
ENABLED	SmallInteger	2	Enabled	ENABLED		1	true	5	0
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Liquefaction - FeatureClass

Name	Liquefaction
ShapeType	Polygon
FeatureType	Simple
AliasName	Liquefaction
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's liquefaction zones.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ZONE	Integer	4	ZONE	ZONE			true	10	0
SUSCEPTIBILITY	String	15	SUSCEPTIBILITY	SUSCEPTIBILITY			true		
DEFINITION_1	String	254	DEFINITION_1	DEFINITION_1			true		
DEFINITION_2	String	254	DEFINITION_2	DEFINITION_2			true		
DEFINITION_3	String	254	DEFINITION_3	DEFINITION_3			true		
DEFINITION_4	String	254	DEFINITION_4	DEFINITION_4			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

LMSActivities - FeatureClass

Name	LMSActivities
ShapeType	Polygon
FeatureType	Simple
AliasName	LMSActivities
HasM	false
HasZ	false
HasAttachments	false
Description	This layer contains the activities, projects, and developments that are entered into the Land Management System (LMS).

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
LMS_KEY	String	16	LMS_KEY	LMS_KEY			true		
CASENAME	String	10	CASENAME	CASENAME			true		
APN	String	9	APN	APN			true		
CASE_TYPE	String	8	CASE_TYPE	CASE_TYPE			true		
STATUS	String	8	STATUS	STATUS			true		
CATEGORY	String	4	CATEGORY	CATEGORY			true		
DEPARTMENT	String	30	DEPARTMENT	DEPARTMENT			true		
APPLIED_DATE	Double	8	APPLIED_DATE	APPLIED_DATE			true	38	8
APPROVED_DATE	Double	8	APPROVED_DATE	APPROVED_DATE			true	38	8
COMPLETED_DATE	Double	8	COMPLETED_DATE	COMPLETED_DATE			true	38	8
EXPIRED_DATE	Double	8	EXPIRED_DATE	EXPIRED_DATE			true	38	8
CASE_TYPE_DESC	String	50	CASE_TYPE_DESC	CASE_TYPE_DESC			true		

CASE_DESC	String	600	CASE_DESC	CASE_DESC			true		
CONSTRUCTION	String	4	CONSTRUCTION	CONSTRUCTION			true		
HOUSE_COUNT	SmallInteger	2	HOUSE_COUNT	HOUSE_COUNT			true	5	0
FCC_CODE	String	8	FCC_CODE	FCC_CODE			true		
OCCUPANCY	String	8	OCCUPANCY	OCCUPANCY			true		
TYPE_RD	String	8	TYPE_RD	TYPE_RD			true		
LOCATION	String	60	LOCATION	LOCATION			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

MammalsSurvey - FeatureClass

Name	MammalsSurvey
ShapeType	Polygon
FeatureType	Simple
AliasName	MammalsSurvey
HasM	false
HasZ	false
HasAttachments	false
Description	MSHCP Mammal Species Survey Areas

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
MAMMAL_CODE	Integer	4	MAMMAL_CODE	MAMMAL_CODE			true	10	0
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8
Code_Desc	String	50	Code_Desc	Code_Desc			true		

MinorWaterDistricts - FeatureClass

Name	MinorWaterDistricts
ShapeType	Polygon
FeatureType	Simple
AliasName	MinorWaterDistricts
HasM	false
HasZ	false
HasAttachments	false
Description	Minor water districts provide services to local communities and operate within the boundaries of larger "major" water distircts.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DISTRICT_NAME	String	32	DISTRICT_NAME	DISTRICT_NAME			false		
FULLNAME	String	50	FULLNAME	FULLNAME			false		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Monuments - FeatureClass

Name	Monuments
ShapeType	Point
FeatureType	Simple
AliasName	Monuments
HasM	false
HasZ	false
HasAttachments	false
Description	Monuments - Survey Control Points.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
PT_NUMBER	SmallInteger	2	PT_NUMBER	PT_NUMBER			true	5	0
N27_NORTHING	Double	8	N27_NORTHING	N27_NORTHING			true	38	8
N27_EASTING	Double	8	N27_EASTING	N27_EASTING			true	38	8
N83_NORTHING	Double	8	N83_NORTHING	N83_NORTHING			true	38	8
N83_EASTING	Double	8	N83_EASTING	N83_EASTING			true	38	8
NAVD29_ELV	Double	8	NAVD29_ELV	NAVD29_ELV			true	38	8
NAVD88_ELV	Double	8	NAVD88_ELV	NAVD88_ELV			true	38	8
ACCURACY	SmallInteger	2	ACCURACY	ACCURACY			true	5	0
DATE_COORD	Date	36	DATE_COORD	DATE_COORD			true		
PT_TYPE	String	4	PT_TYPE	PT_TYPE			true		
REFERENCE	String	14	REFERENCE	REFERENCE			true		
PROJECTED	String	1	PROJECTED	PROJECTED			true		

MSHCPBoundary - FeatureClass

Name	MSHCPBoundary
ShapeType	Polygon
FeatureType	Simple
AliasName	MSHCPBoundary
HasM	false
HasZ	false
HasAttachments	false
Description	This is the boundary layer of the Mulit-Species Habitat Conservation Plan (MSHCP).

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NAME	String	50	NAME	NAME			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

NarrowEndemicPlantsSurvey - FeatureClass

Name	NarrowEndemicPlantsSurvey
ShapeType	Polygon
FeatureType	Simple
AliasName	NarrowEndemicPlantsSurvey
HasM	false
HasZ	false
HasAttachments	false
Description	MSHCP Narrow Endemic Plant Species Survey Areas (NEPSSA)

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NEPSSA_CODE	Integer	4	NEPSSA_CODE	NEPSSA_CODE			true	10	0
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8
Code_Desc	String	175	Code_Desc	Code_Desc			true		

Parks - FeatureClass

Name	Parks
ShapeType	Polygon
FeatureType	Simple
AliasName	Parks
HasM	false
HasZ	false
HasAttachments	false
Description	This data layer contains polygon features representing public parks of Riverside County.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
PARK_NAME	String	50	NAME	PARK_NAME			true		
PARK_TYPE	String	25	PARK_TYPE	PARK_TYPE			true		
JURISDICTION	String	25	JURISDICTION	JURISDICTION			true		
SOURCE	String	50	SOURCE	SOURCE			true		
ACREAGE	Double	8	ACREAGE	ACREAGE			true	38	8
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

PolicyAreas - FeatureClass

Name	PolicyAreas
ShapeType	Polygon
FeatureType	Simple
AliasName	PolicyAreas
HasM	false
HasZ	false
HasAttachments	false
Description	Policies are statements that guide the course of action the County must take to achieve the goals outlined in the three guidance documents, Consensus Planning principles, Vision and General Plan Principles.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
POLICY_NAME	String	75	POLICY_NAME	POLICY_NAME			true		
OVERLAPPED	String	15	OVERLAPPED	OVERLAPPED			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

PQP_ConservedLands - FeatureClass

Name	PQP_ConservedLands
ShapeType	Polygon
FeatureType	Simple
AliasName	PQP_ConservedLands
HasM	false
HasZ	false
HasAttachments	false
Description	This feature class contains properties within Western Riverside County owned, managed or maintained by public agencies for the purposes of conservation.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
TYPE	String	32	TYPE	TYPE			false		
REVIEWED	String	12	REVIEWED	REVIEWED			false		
NOTE_	String	32	NOTE_	NOTE_			false		
NAME	String	50	NAME	NAME			false		
OWNER	String	50	OWNER	OWNER			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

PublicSites - FeatureClass

Name	PublicSites
ShapeType	Point
FeatureType	Simple
AliasName	PublicSites
HasM	false
HasZ	false
HasAttachments	false
Description	This data contains locations of government seats, firestations, police stations, sheriff stations, correctional facilities, DMV offices, and many other public sites of interest.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
SITE_TYPE	String	50	SITE TYPE	SITE_TYPE			true		
SITE_NAME	String	50	SITE NAME	SITE_NAME			true		
ADDRESS	String	40	ADDRESS	ADDRESS			true		
CITY	String	25	CITY	CITY			true		
ZIPCODE	Integer	4	ZIPCODE	ZIPCODE			true	10	0
PHONE	String	20	PHONE	PHONE			true		
RuleID	Integer	4	RuleID	RuleID	PUBLIC_SITES_REP_Rules		true	10	0
Override	Blob	0	Override	Override			true		
GlobalID	GlobalID	38	GlobalID	GlobalID			false		

QuadIndex15 - FeatureClass

Name	QuadIndex15
ShapeType	Polygon
FeatureType	Simple
AliasName	QuadIndex15
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon feature represents Riverside County's 15-minute quad index.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
CO_INDEX_NUM	SmallInteger	2	CO_INDEX_NUM	CO_INDEX_NUM			true	5	0
QUAD_NAME	String	32	QUAD_NAME	QUAD_NAME			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

QuadIndex75 - FeatureClass

Name	QuadIndex75
ShapeType	Polygon
FeatureType	Simple
AliasName	QuadIndex75
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon feature represents Riverside County's 7.5 minute quad Index.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
CO_INDEX_NUM	SmallInteger	2	CO_INDEX_NUM	CO_INDEX_NUM			true	5	0
QUAD_NAME	String	32	QUAD_NAME	QUAD_NAME			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Railroads - FeatureClass

Name	Railroads
ShapeType	Polyline
FeatureType	Simple
AliasName	Railroads
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of line feature represents Riverside County's railroads.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NAME	String	16	NAME	NAME			true		
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Ranchos - FeatureClass

Name	Ranchos
ShapeType	Polygon
FeatureType	Simple
AliasName	Ranchos
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's ranchos.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
RANCHO	String	40	RANCHO	RANCHO			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

RDBridge - FeatureClass

Name RDBridge
ShapeType Polygon
FeatureType Simple
AliasName RDBridge
HasM false
HasZ false
HasAttachments false
Description This data set of polygon features represents Riverside County's Road and Bridge Benefit Districts. There are 4 Road and Bridge Benefit Districts within the county. Fees are assessed on new development projects to provide funding for road and bridge improvements within each district.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DISTRICT_NAME	String	32	DISTRICT_NAME	DISTRICT_NAME			true		
ACREAGE	Double	8	ACREAGE	ACREAGE			true	38	8
DISTRICT_ZONE	String	5	DISTRICT_ZONE	DISTRICT_ZONE			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

RedevelopmentAreas - FeatureClass

Name	RedevelopmentAreas
ShapeType	Polygon
FeatureType	Simple
AliasName	RedevelopmentAreas
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's redevelopment areas.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
SUBAREA_NAME	String	40	SUBAREA_NAME	SUBAREA_NAME			false		
AMENDMENT_NO	SmallInteger	2	AMENDMENT_NO	AMENDMENT_NO			false	5	0
ADOPTION_DATE	Date	36	ADOPTION_DATE	ADOPTION_DATE			false		
ACRES	Double	8	ACRES	ACRES			false	38	8
PROJECT_AREA_NAME	String	32	PROJECT_AREA_NAME	PROJECT_AREA_NAME			false		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Roads - FeatureClass

Name	Roads
ShapeType	Polyline
FeatureType	Simple
AliasName	Roads
HasM	false
HasZ	false
HasAttachments	false
Description	This is the road linework for Riverside County, including cities. This data layer replaces centerlines as the main cartographic and geocoding engine in analysis and mapping.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
CLASS	String	40	CLASS	CLASS			true		
L_F_ADD	String	11	L_F_ADD	L_F_ADD			true		
L_T_ADD	String	11	L_T_ADD	L_T_ADD			true		
R_F_ADD	String	11	R_F_ADD	R_F_ADD			true		
R_T_ADD	String	11	R_T_ADD	R_T_ADD			true		
PREFIX_DIRECTION	String	1	PREFIX_DIRECTION	PREFIX_DIRECTION			true		
STREET_NAME	String	40	STREET_NAME	STREET_NAME			true		
STREET_SUFFIX	String	4	STREET_TYPE	STREET_SUFFIX			true		
SUFFIX_DIRECTION	String	1	SUFFIX_DIRECTION	SUFFIX_DIRECTION			true		
SPEED	SmallInteger	2	SPEED	SPEED			true	5	0
TRAVEL_DIRECTION	SmallInteger	2	TRAVEL_DIRECTION	TRAVEL_DIRECTION			true	5	0
ALT_PREFIX_DIR	String	1	ALT_PREFIX_DIR	ALT_PREFIX_DIR			true		

ALT_NAME	String	40	ALT_NAME	ALT_NAME			true		
ALT_SUFFIX	String	4	ALT_TYPE	ALT_SUFFIX			true		
ALT_SUFFIX_DIR	String	1	ALT_SUFFIX_DIR	ALT_SUFFIX_DIR			true		
ALT2_PREFIX_DIR	String	1	ALT2_PREFIX_DIR	ALT2_PREFIX_DIR			true		
ALT2_NAME	String	40	ALT2_NAME	ALT2_NAME			true		
ALT2_SUFFIX	String	4	ALT2_TYPE	ALT2_SUFFIX			true		
ALT2_SUFFIX_DIR	String	1	ALT2_SUFFIX_DIR	ALT2_SUFFIX_DIR			true		
DATE_CREATED	Date	36	DATE_CREATED	DATE_CREATED			true		
DATE_MODIFIED	Date	36	DATE_MODIFIED	DATE_MODIFIED			true		
EDITOR	String	20	EDITOR	EDITOR			true		
SOURCE	String	40	SOURCE	SOURCE			true		
FULL_NAME	String	60	FULL_NAME	FULL_NAME			true		
FCC	String	3	FCC	FCC			true		
NOTES	String	50	NOTES	NOTES			true		
VERIFIED	String	3	VERIFIED	VERIFIED			true		
NAME_VERIFIED	String	3	NAME_VERIFIED	NAME_VERIFIED			true		
NAME_NOTES	String	100	NAME_NOTES	NAME_NOTES			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

RoughStepUnits - FeatureClass

Name RoughStepUnits
ShapeType Polygon
FeatureType Simple
AliasName RoughStepUnits
HasM false
HasZ false
HasAttachments false
Description Rough Step Units

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
STEPNUM	String	40	STEPNUM	STEPNUM			true		
ACRES	Double	8	ACRES	ACRES			true	38	8
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Runways - FeatureClass

Name	Runways
ShapeType	Polyline
FeatureType	Simple
AliasName	Runways
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of line feature represents Riverside County's airport runways.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
RWY_ID	String	7	RWY_ID	RWY_ID			true		
ST_NAME	String	25	ST_NAME	ST_NAME			true		
STFIPS	String	2	STFIPS	STFIPS			true		
RWY_LEN	Double	8	RWY_LEN	RWY_LEN			true	38	8
RWY_WDTH	Double	8	RWY_WDTH	RWY_WDTH			true	38	8
RWY_SFC_TY	String	12	RWY_SFC_TY	RWY_SFC_TY			true		
RWY_STATUS	String	15	RWY_STATUS	RWY_STATUS			true		
NAME	String	50	NAME	NAME			true		
LOC_ID	String	5	LOC_ID	LOC_ID			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

SchoolDistricts - FeatureClass

Name	SchoolDistricts
ShapeType	Polygon
FeatureType	Simple
AliasName	SchoolDistricts
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's school districts.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DISTRICT_NAME	String	32	DISTRICT_NAME	DISTRICT_NAME			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Sections - FeatureClass

Name	Sections
ShapeType	Polygon
FeatureType	Simple
AliasName	Sections
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Public Land Survey System (PLSS) sections within the County of Riverside.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
TILE	String	8	TILE	TILE			true		
UNIQNUM	Integer	4	UNIQNUM	UNIQNUM			true	10	0
TWNSHP	Integer	4	TWNSHP	TWNSHP			true	10	0
RNGE	Integer	4	RNGE	RNGE			true	10	0
DIR	String	1	DIR	DIR			true		
SCTN	Integer	4	SCTN	SCTN			true	10	0
XMIN	Double	8	XMIN	XMIN			true	38	8
YMIN	Double	8	YMIN	YMIN			true	38	8
XMAX	Double	8	XMAX	XMAX			true	38	8
YMAX	Double	8	YMAX	YMAX			true	38	8
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

SKRHabitats - FeatureClass

Name	SKRHabitats
ShapeType	Polygon
FeatureType	Simple
AliasName	SKRHabitats
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Stephen's Kangaroo Rat habitat within Riverside County.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
SKR_HAB	Integer	4	SKR_HAB	SKR_HAB			true	10	0
SOURCE	String	12	SOURCE	SOURCE			true		
UNV_NUM	Integer	4	UNV_NUM	UNV_NUM			true	10	0
DENSITY	String	15	DENSITY	DENSITY			true		
REFERENCE	String	48	REFERENCE	REFERENCE			true		
DATE_	Date	36	DATE_	DATE_			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

SKRPlanFee - FeatureClass

Name	SKRPlanFee
ShapeType	Polygon
FeatureType	Simple
AliasName	SKRPlanFee
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents the Stephen's Kangaroo Rat plan and fee area within Riverside County.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
FEEAREA	String	1	FEEAREA	FEEAREA			true		
PLANAREA	String	1	PLANAREA	PLANAREA			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

SKRReserves - FeatureClass

Name	SKRReserves
ShapeType	Polygon
FeatureType	Simple
AliasName	SKRReserves
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Stephen's Kangaroo Rat core reserves within Riverside County.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
SKRRESERVE_NUMBER	Integer	4	SKRRESERVE	SKRRESERVE_NUMBER			true	10	0
CORE_RESERVE	String	50	CORERESERV	CORE_RESERVE			true		
ACREAGE	Double	8	ACREAGE	ACREAGE			true	38	8
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

SpecificPlan - FeatureClass

Name	SpecificPlan
ShapeType	Polygon
FeatureType	Simple
AliasName	SpecificPlan
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's specific plans. A specific plan is used to facilitate effective implementation of the general plan. The specific plan must specify in detail the land uses, public and private facilities needed to support the land uses, phasing of development, standards for the conservation, development, and use of natural resources, and a program of implementation measures, including financing measures.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
SP_NUMBER	String	4	SP_NUMBER	SP_NUMBER			true		
SP_NAME	String	40	SP_NAME	SP_NAME			true		
ADOPTED_DATE	Date	36	ADOPTED_DATE	ADOPTED_DATE			true		
PLANNING_AREA	String	4	PLANNING_AREA	PLANNING_AREA			true		
SPLU_DESIGNATION	String	128	SPLU_DESIGNATION	SPLU_DESIGNATION			true		
ACRES	Double	8	ACRES	ACRES			true	38	8
MIN_DENSITY	Integer	4	MIN_DENSITY	MIN_DENSITY			true	10	0
MAX_DENSITY	Integer	4	MAX_DENSITY	MAX_DENSITY			true	10	0
EXPECTED_UNITS	Integer	4	EXPECTED_UNITS	EXPECTED_UNITS			true	10	0
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8

SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

SupervisorialDistricts - FeatureClass

Name	SupervisorialDistricts
ShapeType	Polygon
FeatureType	Simple
AliasName	SupervisorialDistricts
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's Supervisorial districts.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DISTRICT	SmallInteger	2	DISTRICT	DISTRICT			true	5	0
SUPERVISOR	String	32	SUPERVISOR	SUPERVISOR			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Townships - FeatureClass

Name	Townships
ShapeType	Polygon
FeatureType	Simple
AliasName	Townships
HasM	false
HasZ	false
HasAttachments	false
Description	This layer contains the Township and Range data for the County of Riverside.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
RANGE	String	12	RANGE	RANGE			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

TribalLands - FeatureClass

Name	TribalLands
ShapeType	Polygon
FeatureType	Simple
AliasName	TribalLands
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's tribal lands.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
FEATURE	String	80	FEATURE	FEATURE			true		
NAME	String	80	NAME	NAME			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

TUMF - FeatureClass

Name	TUMF
ShapeType	Polygon
FeatureType	Simple
AliasName	TUMF
HasM	false
HasZ	false
HasAttachments	false
Description	The Transportation Uniform Mitigation Fee is supposed to make up for the shortfall of funds necessary for the transportaton needs of communities in CVAG and WRCOG.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ZONENAME	String	11	ZONENAME	ZONENAME			true		
TUMF	String	4	TUMF	TUMF			true		
FEE	String	1	FEE	FEE			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Vegetation - FeatureClass

Name Vegetation
ShapeType Polygon
FeatureType Simple
AliasName Vegetation
HasM false
HasZ false
HasAttachments false
Description Alliance-level, vegetation classification and map of Western Riverside County, California.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
WRC_VEGETATION_ID	Double	8	WRIVVEG	WRC_VEGETATION_ID			true	38	8
VEGETATION_TYPE	SmallInteger	2	PI	VEGETATION_TYPE			true	5	0
DENSITY	SmallInteger	2	DENSITY	DENSITY			true	5	0
EXOTICS	SmallInteger	2	EXOTICS	EXOTICS			true	5	0
CLEARED	SmallInteger	2	CLEARED	CLEARED			true	5	0
HEIGHT	SmallInteger	2	HEIGHT	HEIGHT			true	5	0
SIZE_CODE	SmallInteger	2	SIZE	SIZE_CODE			true	5	0
QUAD_NAME	String	41	QUAD_NAME	QUAD_NAME			false		
COMMON_NAME	String	254	COM_NAME	COMMON_NAME			false		
SCIENTIFIC_NAME	String	254	SCI_NAME	SCIENTIFIC_NAME			false		
WHR_CODE	String	254	WHR_CODE	WHR_CODE			false		
WHR_NAME	String	254	WHR_NAME	WHR_NAME			false		
MSHCP_CLASSIFICATION	String	254	MSHCP_COLL	MSHCP_CLASSIFICATION			false		

SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Waterbodies - FeatureClass

Name	Waterbodies
ShapeType	Polygon
FeatureType	Simple
AliasName	Waterbodies
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features represents Riverside County's water bodies.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NAME	String	32	NAME	NAME			true		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

WaterDistricts - FeatureClass

Name	WaterDistricts
ShapeType	Polygon
FeatureType	Simple
AliasName	WaterDistricts
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon feature represents Riverside County's water district.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DISTRICT_NAME	String	32	DISTRICT_NAME	DISTRICT_NAME			false		
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Watersheds - FeatureClass

Name	Watersheds
ShapeType	Polygon
FeatureType	Simple
AliasName	Watersheds
HasM	false
HasZ	false
HasAttachments	false
Description	Watersheds were derived from data directly received from the State of California. The coverage shows Watershed boundaries as defined by the State Water Resources Control Board

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
HUNAME	String	32	HUNAME	HUNAME			true		
ACRES	Double	8	ACRES	ACRES			true	38	8
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Zoning - FeatureClass

Name	Zoning
ShapeType	Polygon
FeatureType	Simple
AliasName	Zoning
HasM	false
HasZ	false
HasAttachments	false
Description	Zoning is a region or area distinct from the surrounding areas. Zoning designations reserve land for different purposes such as residence, business or manufacturing. For the most current zoning designations along with their uses and restrictions, see Ordinance 348.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ZONING	String	12	ZONING	ZONING			true		
CZNUMBER	Integer	4	CZNUMBER	CZNUMBER			true	10	0
GLOBALID	GlobalID	38	GLOBALID	GLOBALID			false		
ZONING_OVERRIDE	Blob	0	ZONING_OVERRIDE	ZONING_OVERRIDE			true		
ZONING_RULEID	Integer	4	ZONING_RULEID	ZONING_RULEID			true	10	0
RuleID	Integer	4	RuleID	RuleID	ZONING_Rep1_Rules		true	10	0
Override	Blob	0	Override	Override			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Environmental - FeatureDataset

Name Environmental

Description Featureclassess Pertaining to Environmental

CONTOURS - FeatureClass

Name CONTOURS

ShapeType Polyline

FeatureType Simple

AliasName CONTOURS

HasM false

HasZ false

HasAttachments false

Description CONTOURS feature class represents terrain surface and displays elevation above or below sea level with positive or negative values in feet. The contour interval is 4 feet. Index contours are 20-foot based.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
CONTOUR_TYPE	String	20	CONTOUR_TYPE	CONTOUR_TYPE			false		
ELEVATION	Double	8	ELEVATION	ELEVATION			false	38	8
RuleID	Integer	4	RuleID	RuleID	CONTOUR_TYPE_Rules		true	10	0
Override	Blob	0	Override	Override			true		
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

DTW_Contours - FeatureClass

Name	DTW_Contours
ShapeType	Polyline
FeatureType	Simple
AliasName	DTW_Contours
HasM	false
HasZ	false
HasAttachments	false
Description	Depth-to-groundwater contours for the shallow aquifer of the Chino Basin for spring 2010 in feet below ground-level and SAWPA - Groundwater Contours for Santa Ana Watershed Groundwater Management Zones as calculated from AWQ Report for the period 1987-2006. Elevation data is in Feet.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Elevation	Double	8	Elevation	Elevation			true	15	2
UniqueID	String	30	UniqueID	UniqueID			true		

FLOOD - FeatureClass

Name	FLOOD
ShapeType	Polygon
FeatureType	Simple
AliasName	Flood
HasM	false
HasZ	false
HasAttachments	false
Description	This data is intended for identifying the areas where a floodplain is located that is officially adopted for regulatory purposes under Ordinance 458 of Riverside County.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
REGULATION	String	50	REGULATION	REGULATION			true		
DISTRICT	String	50	DISTRICT	DISTRICT			true		
Shape_STArea__	Double	8	STArea()	Shape_STArea__			false	38	8
Shape_STLength__	Double	8	STLength()	Shape_STLength__			false	38	8

Flood_Zones - FeatureClass

Name	Flood_Zones
ShapeType	Polygon
FeatureType	Simple
AliasName	Flood Zones
HasM	false
HasZ	false
HasAttachments	false
Description	The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The special Flood Hazard Area is the area subject to flooding by the 1% annual chance of flood. Areas of special flood hazard include zones A, AE, AH, AO (for Riverside County). The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
FLD_AR_ID	String	11	FLD_AR_ID	FLD_AR_ID			true		
FLD_ZONE	String	55	FLD_ZONE	FLD_ZONE			true		
FLOODWAY	String	30	FLOODWAY	FLOODWAY			true		
SFHA_TF	String	1	SFHA_TF	SFHA_TF			true		
STATIC_BFE	Double	8	STATIC_BFE	STATIC_BFE			true	14	2
V_DATUM	String	6	V_DATUM	V_DATUM			true		
DEPTH	Double	8	DEPTH	DEPTH			true	14	2
LEN_UNIT	String	20	LEN_UNIT	LEN_UNIT			true		
VELOCITY	Double	8	VELOCITY	VELOCITY			true	14	2
VEL_UNIT	String	20	VEL_UNIT	VEL_UNIT			true		
AR_REVERT	String	6	AR_REVERT	AR_REVERT			true		

BFE_REVERT	Double	8	BFE_REVERT	BFE_REVERT			true	14	2
DEP_REVERT	Double	8	DEP_REVERT	DEP_REVERT			true	14	2
SOURCE_CIT	String	11	SOURCE_CIT	SOURCE_CIT			true		

Geotracker - FeatureClass

Name	Geotracker
ShapeType	Point
FeatureType	Simple
AliasName	Geotracker Point Locations
HasM	false
HasZ	false
HasAttachments	false
Description	GeoTracker is the Water Boards' data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (underground storage tanks, DOD, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. GeoTracker reports help Water Board supervisors, State Water Board, and USEPA monitor progress of cases throughout the State.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
COUNTY	String	254	COUNTY	COUNTY			true		
GLOBAL_ID	String	254	GLOBAL_ID	GLOBAL_ID			true		
GLOBAL_ID_	Double	8	GLOBAL_ID_	GLOBAL_ID_			true	38	8
GLOBAL_ID1	Double	8	GLOBAL_ID1	GLOBAL_ID1			true	38	8
FIELD_PT_N	String	254	FIELD_PT_N	FIELD_PT_N			true		
FIELD_PT_C	String	254	FIELD_PT_C	FIELD_PT_C			true		
XY_SURVEY_	Date	36	XY_SURVEY_	XY_SURVEY_			true		
LATITUDE	Double	8	LATITUDE	LATITUDE			true	38	8
LONGITUDE	Double	8	LONGITUDE	LONGITUDE			true	38	8
XY_METHOD	String	254	XY_METHOD	XY_METHOD			true		

XY_DATUM	String	254	XY_DATUM	XY_DATUM			true		
XY_ACC_VAL	Double	8	XY_ACC_VAL	XY_ACC_VAL			true	38	8
XY_SURVEY1	String	254	XY_SURVEY1	XY_SURVEY1			true		
GPS_EQUIP_	String	254	GPS_EQUIP_	GPS_EQUIP_			true		
XY_SURVE_1	String	254	XY_SURVE_1	XY_SURVE_1			true		
ClassDesc	String	128	ClassDesc	ClassDesc			true		

GW_Basins - FeatureClass

Name	GW_Basins
ShapeType	Polygon
FeatureType	Simple
AliasName	Groundwater Basins
HasM	false
HasZ	false
HasAttachments	false
Description	Groundwater Basins were compiled from the Chino Basin Water Master and City of Corona. Gasin include Chino Basin, Bedford, Coldwater and Upper Satna Ana Valley groundwater basins.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DWR_	String	12	DWR_	DWR_			false		
SUBBSN_	String	12	SUBBSN_	SUBBSN_			false		
BAS_SBBSN	String	254	BAS_SBBSN	BAS_SBBSN			false		
GWBASIN	String	40	GWBASIN	GWBASIN			false		
TYPE	String	8	TYPE	TYPE			false		
SUBNAME	String	40	SUBNAME	SUBNAME			false		
DWR_DIST	String	10	DWR_DIST	DWR_DIST			false		
ACRES	Double	8	ACRES	ACRES			false	18	3
BUDGET_TYP	String	50	BUDGET_TYP	BUDGET_TYP			false		
Source	String	50	Source	Source			true		

GW_ManagementZones - FeatureClass

Name	GW_ManagementZones
ShapeType	Polygon
FeatureType	Simple
AliasName	GW_ManagementZones
HasM	false
HasZ	false
HasAttachments	false
Description	Groundwater Management Zones for the Regional Water Quality Control Board (Region 8) Basin Plan update 2004.
Tags	groundwater, management zones, santa ana river, watershed

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
NAME	String	40	NAME	NAME			true		
AREA_M2	Double	8	AREA_M2	AREA_M2			true	16	5
OBJ_NO3_N	Double	8	OBJ_NO3_N	OBJ_NO3_N			true	16	5
HIST_NO3_N	Double	8	HIST_NO3_N	HIST_NO3_N			true	16	5
CURR_NO3_N	Double	8	CURR_NO3_N	CURR_NO3_N			true	16	5
AC_NO3_N	Double	8	AC_NO3_N	AC_NO3_N			true	16	5
OBJ_TDS	Double	8	OBJ_TDS	OBJ_TDS			true	16	5
HIST_TDS	Double	8	HIST_TDS	HIST_TDS			true	16	5
CURR_TDS	Double	8	CURR_TDS	Internal feature number.			true	16	5
AC_TDS	Double	8	AC_TDS	AC_TDS			true	16	5

Isoheyetal_Major_Contours - FeatureClass

Name	Isoheyetal_Major_Contours
ShapeType	Polyline
FeatureType	Simple
AliasName	Isoheyetal Major Contours
HasM	false
HasZ	false
HasAttachments	false
Description	Isoheyetal Major Contours

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ELEMENTLEV	Double	8	ELEMENTLEV	ELEMENTLEV			false	11	0
ELEMENTTYP	Double	8	ELEMENTTYP	ELEMENTTYP			false	11	0
ELEMENTCOL	Double	8	ELEMENTCOL	ELEMENTCOL			false	11	0
ELEMENTSTY	Double	8	ELEMENTSTY	ELEMENTSTY			false	11	0
ELEMENTWEI	Double	8	ELEMENTWEI	ELEMENTWEI			false	11	0
GRAPHICGRO	Double	8	GRAPHICGRO	GRAPHICGRO			false	11	0
CELLNAME	String	254	CELLNAME	CELLNAME			false		
ELEMENTL0	String	254	ELEMENTL0	ELEMENTL0			false		
MODELNAME	String	254	MODELNAME	MODELNAME			false		
ELEMENTID	Double	8	ELEMENTID	ELEMENTID			false	30	15
MAPNAME	String	254	MAPNAME	MAPNAME			false		

ELEMENTZ	Double	8	ELEMENTZ	ELEMENTZ			false	30	15
ELEMENTC0	Double	8	ELEMENTC0	ELEMENTC0			false	11	0
ELEMENTFIL	Double	8	ELEMENTFIL	ELEMENTFIL			false	11	0
FONTNAME	String	254	FONTNAME	FONTNAME			false		
FONTSIZEHI	Double	8	FONTSIZEHI	FONTSIZEHI			false	30	15
ID1	Double	8	ID1	ID1			false	11	0
ID2	Double	8	ID2	ID2			false	11	0
Contour	String	9	Contour	Contour			false		

Isoheyetal_Minor_Contours - FeatureClass

Name Isoheyetal_Minor_Contours
ShapeType Polyline
FeatureType Simple
AliasName Isoheyetal Minor Contours
HasM false
HasZ false
HasAttachments false
Description Isoheyetal Minor Contours

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
ELEMENTLEV	Double	8	ELEMENTLEV	ELEMENTLEV			false	11	0
ELEMENTTYP	Double	8	ELEMENTTYP	ELEMENTTYP			false	11	0
ELEMENTCOL	Double	8	ELEMENTCOL	ELEMENTCOL			false	11	0
ELEMENTSTY	Double	8	ELEMENTSTY	ELEMENTSTY			false	11	0
ELEMENTWEI	Double	8	ELEMENTWEI	ELEMENTWEI			false	11	0
GRAPHICGRO	Double	8	GRAPHICGRO	GRAPHICGRO			false	11	0
CELLNAME	String	254	CELLNAME	CELLNAME			false		
ELEMENTL0	String	254	ELEMENTL0	ELEMENTL0			false		
MODELNAME	String	254	MODELNAME	MODELNAME			false		
ELEMENTID	Double	8	ELEMENTID	ELEMENTID			false	30	15
MAPNAME	String	254	MAPNAME	MAPNAME			false		
ELEMENTZ	Double	8	ELEMENTZ	ELEMENTZ			false	30	15
ELEMENTC0	Double	8	ELEMENTC0	ELEMENTC0			false	11	0

ELEMENTFIL	Double	8	ELEMENTFIL	ELEMENTFIL			false	11	0
FONTNAME	String	254	FONTNAME	FONTNAME			false		
FONTSIZEHI	Double	8	FONTSIZEHI	FONTSIZEHI			false	30	15
ID1	Double	8	ID1	ID1			false	11	0
ID2	Double	8	ID2	ID2			false	11	0
Contour	String	9	Contour	Contour			false		

Isoheyetal_RainGauges - FeatureClass

Name	Isoheyetal_RainGauges
ShapeType	Point
FeatureType	Simple
AliasName	Isoheyetal Rain Gauges LVL1 Points
HasM	false
HasZ	false
HasAttachments	false
Description	Isoheyetal Rain Gauges

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
PRIMARYIND	Double	8	PRIMARYIND	PRIMARYIND			false	11	0
Level_	String	9	Level_	Level_			false		
Name	String	30	Name	Name			false		

Lines_303d - FeatureClass

Name	Lines_303d
ShapeType	Polyline
FeatureType	Simple
AliasName	Lines_303d
HasM	false
HasZ	false
HasAttachments	false
Description	REQUIRED: A brief narrative summary of the data set.
Tags	Clean Water Act (CWA) section 303(d) requires states to identify water bodies that do not meet, or are not expected to meet water quality standards. Remediation of the standards attainment problem requires one or more Total Maximum Daily Loads (TMDLs). The original statewide 303(d) impaired waterbody data was created by the State Water Resources Control Board

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
LENGTH	Double	8	LENGTH	LENGTH			true	38	8
TDCKEY	Integer	4	TDCKEY	TDCKEY			true	10	0
RF3RCHID	String	17	RF3RCHID	RF3RCHID			true		
PNAME	String	30	PNAME	PNAME			true		
PNMCD	String	11	PNMCD	PNMCD			true		
RFORGFLAG	SmallInteger	2	RFORGFLAG	RFORGFLAG			true	5	0
UPDATE2	String	6	UPDATE2	UPDATE2			true		
UPDTCD2	String	8	UPDTCD2	UPDTCD2			true		
UPDTSRC2	String	8	UPDTSRC2	UPDTSRC2			true		
FILLER	String	7	FILLER	FILLER			true		

WBID	String	25	WBID	WBID			true		
WBNAME	String	150	WBNAME	WBNAME			true		
REGION	String	4	REGION	REGION			true		
REGION_NM	String	50	REGION_NM	REGION_NM			true		
WBTYPE	String	4	WBTYPE	WBTYPE			true		
WBTYPE_NM	String	50	WBTYPE_NM	WBTYPE_NM			true		

Plumes - FeatureClass

Name	Plumes
ShapeType	Polygon
FeatureType	Simple
AliasName	Plumes
HasM	false
HasZ	false
HasAttachments	false
Description	This layer was developed by compiling plume information from SAWPA and Chino Basin Water Master to provide pertinent information for inventory and analysis. Groundwater Contaminant Plumes in Santa Ana Watershed as compiled by OCWD in 2008 for the OWOW Water Quality Pillar.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
PLUMES_ID	Double	8	PLUMES_ID	PLUMES_ID			false	11	0
NAME	String	50	NAME	NAME			false		
DESCRIPTIO	String	100	DESCRIPTIO	DESCRIPTIO			false		
CONTAMINAN	String	125	CONTAMINAN	CONTAMINAN			false		
MajCont	String	254	MajCont	MajCont			false		
PlumeDate	Integer	4	PlumeDate	PlumeDate			false	10	0
Source	String	60	Source	Source			false		
UniqueID	String	30	UniqueID	UniqueID			true		

Polygons_303d - FeatureClass

Name Polygons_303d

ShapeType Polygon

FeatureType Simple

AliasName Polygons_303d

HasM false

HasZ false

HasAttachments false

Description Clean Water Act (CWA) section 303(d) requires states to identify water bodies that do not meet, or are not expected to meet water quality standards. Remediation of the standards attainment problem requires one or more Total Maximum Daily Loads (TMDLs). The original statewide 303(d) impaired waterbody data was created by the State Water Resources Control Board

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
LAKES_	Double	8	LAKES_	LAKES_			true	38	8
LAKES_ID	Double	8	LAKES_ID	LAKES_ID			true	38	8
WATER	String	1	WATER	WATER			true		
NAME	String	47	NAME	NAME			true		
WRCBLAKES	Double	8	WRCBLAKES	WRCBLAKES			true	38	8
GNIS_ID	String	20	GNIS_ID	GNIS_ID			true		
IFDKEY	Double	8	IFDKEY	IFDKEY			true	38	8
WBID	String	25	WBID	WBID			true		

WBNAME	String	150	WBNAME	WBNAME			true		
REGION	String	4	REGION	REGION			true		
REGION_NM	String	50	REGION_NM	REGION_NM			true		
WBTYPE	String	4	WBTYPE	WBTYPE			true		
WBTYPE_NM	String	50	WBTYPE_NM	WBTYPE_NM			true		

RCA_CONSERVED_LANDS - FeatureClass

Name	RCA_CONSERVED_LANDS
ShapeType	Polygon
FeatureType	Simple
AliasName	RCA_CONSERVED_LANDS
HasM	false
HasZ	false
HasAttachments	false
Description	RCA CONSERVED LANDS

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
APN	String	9	APN	APN			true		
TYPE	String	32	TYPE	TYPE			true		
NOTE_	String	32	NOTE_	NOTE_			true		
ACQUIRED	String	10	ACQUIRED	ACQUIRED			true		
ACREAGE	Double	8	ACREAGE	ACREAGE			true	38	8
NAME	String	50	NAME	NAME			true		
PROJECT_ID	String	10	PROJECT_ID	PROJECT_ID			true		
OWNER	String	50	OWNER	OWNER			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

Soils - FeatureClass

Name	Soils
ShapeType	Polygon
FeatureType	Simple
AliasName	Soils
HasM	false
HasZ	false
HasAttachments	false
Description	This data set is a digital soil survey and generally is the most detailed level of soil geographic data developed by the National Cooperative Soil Survey.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AreaSymbol	String	20	AreaSymbol	AreaSymbol			true		
Musym	String	6	Musym	Musym			true		
HydroUnit	String	10	HydroUnit	HydroUnit			true		
Watershed	String	50	Watershed	Watershed			true		
MUNAME	String	75	MUNAME	MUNAME			true		

Soils_Hydro - FeatureClass

Name	Soils_Hydro
ShapeType	Polygon
FeatureType	Simple
AliasName	Soils with Hydro Field
HasM	false
HasZ	false
HasAttachments	false
Description	This data set is a digital soil survey and generally is the most detailed level of soil geographic data developed by the National Cooperative Soil Survey with Hydro Field

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
HydroUnit	String	10	HydroUnit	HydroUnit			true		
MUNAME	String	75	MUNAME	MUNAME			true		

SUBSIDENCE - FeatureClass

Name	SUBSIDENCE
ShapeType	Polygon
FeatureType	Simple
AliasName	SUBSIDENCE
HasM	false
HasZ	false
HasAttachments	false
Description	This data set of polygon features portrays those areas within the County of Riverside that have documented or are susceptible to subsidence. It was derived by RBF consultants and adopted by RCIP.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
SUSCEPTIBILITY	String	15	SUSCEPTIBILITY	SUSCEPTIBILITY			true		
SHAPE_STArea__	Double	8	STArea()	SHAPE_STArea__			false	38	8
SHAPE_STLength__	Double	8	STLength()	SHAPE_STLength__			false	38	8

TMDLs - FeatureClass

Name TMDLs

ShapeType Polygon

FeatureType Simple

AliasName Riverside County TMDLs

HasM false

HasZ false

HasAttachments false

Description Total Maximum Daily Load (TMDL) is established at the level necessary to implement the applicable water quality standards. A TMDL requires that all sources of pollution and all aspects of a watershed's drainage system be reviewed. TMDLs in California are developed either by RWQCBs or by USEPA. TMDLs developed by RWQCBs are designed as Basin Plan amendments and include implementation provisions.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA	Double	8	AREA	AREA			false	18	8
PERIMETER	Double	8	PERIMETER	PERIMETER			false	18	8
LAKES_	Double	8	LAKES_	LAKES_			false	18	8
LAKES_ID	Double	8	LAKES_ID	LAKES_ID			false	18	8
WATER	String	1	WATER	WATER			false		
NAME	String	47	NAME	NAME			false		
WRCBLAKES	Double	8	WRCBLAKES	WRCBLAKES			false	18	8
GNIS_ID	String	20	GNIS_ID	GNIS_ID			false		
IFDKEY	Double	8	IFDKEY	IFDKEY			false	18	8
WBID	String	25	WBID	WBID			false		
WBNAME	String	150	WBNAME	WBNAME			false		

REGION	String	4	REGION	REGION			false		
REGION_NM	String	50	REGION_NM	REGION_NM			false		
WBTYPE	String	4	WBTYPE	WBTYPE			false		
WBTYPE_NM	String	50	WBTYPE_NM	WBTYPE_NM			false		

TMDLs_Line - FeatureClass

Name	TMDLs_Line
ShapeType	Polyline
FeatureType	Simple
AliasName	Riverside County TMDL Lines
HasM	false
HasZ	false
HasAttachments	false
Description	Total Maximum Daily Load (TMDL) is established at the level necessary to implement the applicable water quality standards. A TMDL requires that all sources of pollution and all aspects of a watershed's drainage system be reviewed. TMDLs in California are developed either by RWQCBs or by USEPA. TMDLs developed by RWQCBs are designed as Basin Plan amendments and include implementation provisions.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
LENGTH	Double	8	LENGTH	LENGTH			false	18	5
TDCKEY	Integer	4	TDCKEY	TDCKEY			false	10	0
RF3RCHID	String	17	RF3RCHID	RF3RCHID			false		
PNAME	String	30	PNAME	PNAME			false		
PNMCD	String	11	PNMCD	PNMCD			false		
RFORGFLAG	SmallInteger	2	RFORGFLAG	RFORGFLAG			false	5	0
UPDATE2	String	6	UPDATE2	UPDATE2			false		
UPDTCD2	String	8	UPDTCD2	UPDTCD2			false		
UPDTSRC2	String	8	UPDTSRC2	UPDTSRC2			false		
FILLER	String	7	FILLER	FILLER			false		
WBID	String	25	WBID	WBID			false		

WBNAME	String	150	WBNAME	WBNAME			false		
REGION	String	4	REGION	REGION			false		
REGION_NM	String	50	REGION_NM	REGION_NM			false		
WBTYPE	String	4	WBTYPE	WBTYPE			false		
WBTYPE_NM	String	50	WBTYPE_NM	WBTYPE_NM			false		

Habitat - FeatureDataset

Name Habitat

Description Featureclasses Pertaining to Habitat

CriticalHabitat_AMPU - FeatureClass

Name CriticalHabitat_AMPU

ShapeType Polygon

FeatureType Simple

AliasName San Diego Ambrosia

HasM false

HasZ false

HasAttachments false

Description San Diego Ambrosia

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH_2010_	Double	8	FCH_2010_	FCH_2010_			true	11	0
ID	Double	8	ID	ID			true	11	0
POLY_	Double	8	POLY_	POLY_			true	11	0
SUBCLASS	String	13	SUBCLASS	SUBCLASS			true		
SUBCLASS_	Double	8	SUBCLASS_	SUBCLASS_			true	11	0

ARE	Double	8	ARE	ARE			true	21	7
PER	Double	8	PER	PER			true	21	7
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_ARUR - FeatureClass

Name	CriticalHabitat_ARUR
ShapeType	Polygon
FeatureType	Simple
AliasName	Bear Valley Sandwort
HasM	false
HasZ	false
HasAttachments	false
Description	Bear Valley sandwort (Arenaria ursina)

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_ASAL - FeatureClass

Name	CriticalHabitat_ASAL
ShapeType	Polygon
FeatureType	Simple
AliasName	Cushenbury Milk-Vetch
HasM	false
HasZ	false
HasAttachments	false
Description	Cushenbury milk-vetch (Astragalus albens)

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		

CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8
CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_BENE - FeatureClass

Name	CriticalHabitat_BENE
ShapeType	Polygon
FeatureType	Simple
AliasName	Nevins Barberry
HasM	false
HasZ	false
HasAttachments	false
Description	Nevins Barberry

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH83_	Double	8	FCH83_	FCH83_			true	11	0
FCH83_ID	Double	8	FCH83_ID	FCH83_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		

CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8
CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_BRFI - FeatureClass

Name	CriticalHabitat_BRFI
ShapeType	Polygon
FeatureType	Simple
AliasName	Bordiaea Filifolia
HasM	false
HasZ	false
HasAttachments	false
Description	Thread-Leaved brodiaea

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
FRCH_11_	Double	8	FRCH_11_	FRCH_11_			true	11	0
FRCH_11_ID	Double	8	FRCH_11_ID	FRCH_11_ID			true	11	0
CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_CACI - FeatureClass

Name CriticalHabitat_CACI
ShapeType Polygon
FeatureType Simple
AliasName Ash-Gray Indian Paintbrush
HasM false
HasZ false
HasAttachments false
Description Ash-Grey paintbrush

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_CAGN - FeatureClass

Name	CriticalHabitat_CAGN
ShapeType	Polygon
FeatureType	Simple
AliasName	Costal California Gnatcatcher
HasM	false
HasZ	false
HasAttachments	false
Description	Coastal California gnatcatcher

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_CEOP - FeatureClass

Name	CriticalHabitat_CEOP
ShapeType	Polygon
FeatureType	Simple
AliasName	Vail Lake Ceanothus
HasM	false
HasZ	false
HasAttachments	false
Description	Vail Lake ceanothus

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
FCH83_	Double	8	FCH83_	FCH83_			true	11	0
FCH83_ID	Double	8	FCH83_ID	FCH83_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_ERKEA - FeatureClass

Name	CriticalHabitat_ERKEA
ShapeType	Polygon
FeatureType	Simple
AliasName	Southern Mountain Wild Buckwheat
HasM	false
HasZ	false
HasAttachments	false
Description	Southern Mountain wild-buckwheat

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_EROVV - FeatureClass

Name	CriticalHabitat_EROVV
ShapeType	Polygon
FeatureType	Simple
AliasName	Cushenbury Buckwheat
HasM	false
HasZ	false
HasAttachments	false
Description	Cushenbury buckwheat

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_ERPA - FeatureClass

Name	CriticalHabitat_ERPA
ShapeType	Polygon
FeatureType	Simple
AliasName	Parish's Daisy
HasM	false
HasZ	false
HasAttachments	false
Description	Parish's daisy

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_LBV - FeatureClass

Name	CriticalHabitat_LBV
ShapeType	Polygon
FeatureType	Simple
AliasName	Least Bell's Vireo
HasM	false
HasZ	false
HasAttachments	false
Description	Least Bell's vireo

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
LBV_FCH83_	Double	8	LBV_FCH83_	LBV_FCH83_			true	11	0
FCH83_ID	Double	8	FCH83_ID	FCH83_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_LEKIB - FeatureClass

Name	CriticalHabitat_LEKIB
ShapeType	Polygon
FeatureType	Simple
AliasName	San Bernardino Mountains Bladderpod
HasM	false
HasZ	false
HasAttachments	false
Description	San Bernardino Mountains bladderpod

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_LMS - FeatureClass

Name	CriticalHabitat_LMS
ShapeType	Polygon
FeatureType	Simple
AliasName	Laguna Mountains Skipper
HasM	false
HasZ	false
HasAttachments	false
Description	Laguna Mountains skipper

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
LMS_FCH83_	Double	8	LMS_FCH83_	LMS_FCH83_			true	11	0
FCH83_ID	Double	8	FCH83_ID	FCH83_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_MUON - FeatureClass

Name	CriticalHabitat_MUON
ShapeType	Polygon
FeatureType	Simple
AliasName	Munz's Onion
HasM	false
HasZ	false
HasAttachments	false
Description	Munz's onion

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_MYLF - FeatureClass

Name	CriticalHabitat_MYLF
ShapeType	Polygon
FeatureType	Simple
AliasName	Yellow-Legged Frog
HasM	false
HasZ	false
HasAttachments	false
Description	Mountain Yellow-Legged frog

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_NAFO - FeatureClass

Name	CriticalHabitat_NAFO
ShapeType	Polygon
FeatureType	Simple
AliasName	Spreading Navarretia
HasM	false
HasZ	false
HasAttachments	false
Description	Spreading navarretia

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH83_10_	Double	8	FCH83_10_	FCH83_10_			true	11	0
ID	Double	8	ID	ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
ACRES	Double	8	ACRES	ACRES			true	38	8

HECTARES	Double	8	HECTARES	HECTARES			true	38	8
LABEL	String	50	LABEL	LABEL			true		
CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_PBS - FeatureClass

Name	CriticalHabitat_PBS
ShapeType	Polygon
FeatureType	Simple
AliasName	Peninsular Bighorn Sheep
HasM	false
HasZ	false
HasAttachments	false
Description	Peninsular bighorn sheep

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH83_09_	Double	8	FCH83_09_	FCH83_09_			true	11	0
ID	Double	8	ID	ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_POAT - FeatureClass

Name	CriticalHabitat_POAT
ShapeType	Polygon
FeatureType	Simple
AliasName	San Bernardino Blue Grass
HasM	false
HasZ	false
HasAttachments	false
Description	San Bernardino bluegrass

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_QCB - FeatureClass

Name	CriticalHabitat_QCB
ShapeType	Polygon
FeatureType	Simple
AliasName	Quino Checkerspot Butterfly
HasM	false
HasZ	false
HasAttachments	false
Description	Quino Checkerspot butterfly

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH83_09_	Double	8	FCH83_09_	FCH83_09_			true	11	0
ID	Double	8	ID	ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_RFS - FeatureClass

Name	CriticalHabitat_RFS
ShapeType	Polygon
FeatureType	Simple
AliasName	Riverside Fairy Shrimp
HasM	false
HasZ	false
HasAttachments	false
Description	Riverside fairy shrimp

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
RFS_RPCH_	Double	8	RFS_RPCH_	RFS_RPCH_			true	11	0
RPCH_ID	Double	8	RPCH_ID	RPCH_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	75	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_SBKR - FeatureClass

Name	CriticalHabitat_SBKR
ShapeType	Polygon
FeatureType	Simple
AliasName	San Bernardino kangaroo Rat
HasM	false
HasZ	false
HasAttachments	false
Description	San Bernardino Merriam's kangaroo rat

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	21	7
PERIMETER	Double	8	PERIMETER	PERIMETER			true	21	7
FCH83_	Double	8	FCH83_	FCH83_			true	11	0
FCH83_ID	Double	8	FCH83_ID	FCH83_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_SDFS - FeatureClass

Name	CriticalHabitat_SDFS
ShapeType	Polygon
FeatureType	Simple
AliasName	San Diego Fairy Shrimp
HasM	false
HasZ	false
HasAttachments	false
Description	San Diego fairy shrimp

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_SDTM - FeatureClass

Name CriticalHabitat_SDTM
ShapeType Polygon
FeatureType Simple
AliasName San Diego Thornmint
HasM false
HasZ false
HasAttachments false
Description San Diego thornmint

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_SDTM_Point - FeatureClass

Name	CriticalHabitat_SDTM_Point
ShapeType	Point
FeatureType	Simple
AliasName	San Diego Thornmint Points
HasM	false
HasZ	false
HasAttachments	false
Description	San Diego thornmint Point

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		

STATUS	String	30	STATUS	Listing status			true		
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_SWWF - FeatureClass

Name	CriticalHabitat_SWWF
ShapeType	Polygon
FeatureType	Simple
AliasName	Southwestern Willow Flycatcher
HasM	false
HasZ	false
HasAttachments	false
Description	Southwestern Willow flycatcher

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH83_	Double	8	FCH83_	FCH83_			true	11	0
FCH83_ID	Double	8	FCH83_ID	FCH83_ID			true	11	0
POLY_	Double	8	POLY_	POLY_			true	11	0
SUBCLASS	String	13	SUBCLASS	SUBCLASS			true		
SUBCLASS_	Double	8	SUBCLASS_	SUBCLASS_			true	11	0
RINGS_OK	Double	8	RINGS_OK	RINGS_OK			true	11	0
RINGS_NOK	Double	8	RINGS_NOK	RINGS_NOK			true	11	0
NAME	String	50	NAME	NAME			true		
DESCRIP	String	200	DESCRIP	DESCRIP			true		
RIVER	String	50	RIVER	RIVER			true		
COMPLEX	String	50	COMPLEX	COMPLEX			true		

IMG_SRC	String	100	IMG_SRC	IMG_SRC			true		
DIG_SRC	String	50	DIG_SRC	DIG_SRC			true		
RU	String	50	RU	RU			true		
MU	String	50	MU	MU			true		
EXCLUSION	String	100	EXCLUSION	EXCLUSION			true		
UNIT	String	50	UNIT	UNIT			true		
STATE	String	50	STATE	STATE			true		
COUNTY	String	50	COUNTY	COUNTY			true		
LENGTH_MI	Double	8	LENGTH_MI	LENGTH_MI			true	38	8
P_STATUS	String	50	P_STATUS	P_STATUS			true		
D_STATUS	String	50	D_STATUS	D_STATUS			true		
FR_YR	Double	8	FR_YR	FR_YR			true	11	0
ACRES	Double	8	ACRES	ACRES			true	38	8
HECTARES	Double	8	HECTARES	HECTARES			true	38	8
SHAPE_LENG	Double	8	SHAPE_LENG	SHAPE_LENG			true	38	8
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8
CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitat_WSP - FeatureClass

Name	CriticalHabitat_WSP
ShapeType	Polygon
FeatureType	Simple
AliasName	Western Snowy Plover
HasM	false
HasZ	false
HasAttachments	false
Description	Western Snowy plover

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
WSP_FCH83_	Double	8	WSP_FCH83_	WSP_FCH83_			true	11	0
FCH83_ID	Double	8	FCH83_ID	FCH83_ID			true	11	0
STATE	String	5	STATE	STATE			true		
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNIT_NAME	String	50	UNIT_NAME	UNIT_NAME			true		
STATUS	String	30	STATUS	Listing status			true		

CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8
CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

CriticalHabitiat_TACA - FeatureClass

Name	CriticalHabitiat_TACA
ShapeType	Polygon
FeatureType	Simple
AliasName	California Taraxacum Dandelion
HasM	false
HasZ	false
HasAttachments	false
Description	California taraxacum

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
AREA_	Double	8	AREA_	AREA_			true	38	8
PERIMETER	Double	8	PERIMETER	PERIMETER			true	38	8
FCH27_	Double	8	FCH27_	FCH27_			true	11	0
FCH27_ID	Double	8	FCH27_ID	FCH27_ID			true	11	0
CNAME	String	50	CNAME	CNAME			true		
SNAME	String	50	SNAME	SNAME			true		
SPP_CODE	String	10	SPP_CODE	SPP_CODE			true		
ORG_CODE	String	10	ORG_CODE	ORG_CODE			true		
UNIT_NUM	String	10	UNIT_NUM	UNIT_NUM			true		
SUBUNIT	String	10	SUBUNIT	SUBUNIT			true		
UNITNAME	String	50	UNITNAME	UNITNAME			true		
STATUS	String	30	STATUS	Listing status			true		
CENTROID_X	Double	8	CENTROID_X	CENTROID_X			true	38	8

CENTROID_Y	Double	8	CENTROID_Y	CENTROID_Y			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		

Habitat_Union - FeatureClass

Name	Habitat_Union
ShapeType	Polygon
FeatureType	Simple
AliasName	Habitat_Union
HasM	false
HasZ	false
HasAttachments	false
Description	Habitat Union

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Code_Desc	String	50	Code_Desc	Code_Desc			true		
Areas_Desc	String	250	Areas_Desc	Areas_Desc			true		
UNIT_NAME	String	16	UNIT_NAME	UNIT_NAME			true		
Code_Desc_12	String	50	Code_Desc	Code_Desc_12			true		
Code_Desc_12_13	String	175	Code_Desc	Code_Desc_12_13			true		
DENSITY	String	15	DENSITY	DENSITY			true		
CNAME	String	50	CNAME	CNAME			true		
CNAME_1	String	50	CNAME	CNAME_1			true		
UNIT_NAME_1	String	50	UNIT_NAME	UNIT_NAME_1			true		

CNAME_12	String	50	CNAME	CNAME_12			true		
CNAME_12_13	String	50	CNAME	CNAME_12_13			true		
CNAME_12_13_14	String	50	CNAME	CNAME_12_13_14			true		
CNAME_12_13_14_15	String	50	CNAME	CNAME_12_13_14_15			true		
CNAME_12_13_14_15_16	String	50	CNAME	CNAME_12_13_14_15_16			true		
CNAME_12_13_14_15_16_17	String	50	CNAME	CNAME_12_13_14_15_16_17			true		
CNAME_12_13_14_15_16_17_18	String	50	CNAME	CNAME_12_13_14_15_16_17_18			true		
CNAME_12_13_14_15_16_17_18_19	String	50	CNAME	CNAME_12_13_14_15_16_17_18_19			true		
CNAME_12_13_14_15_16_17_18_19_2	String	50	CNAME	CNAME_12_13_14_15_16_17_18_19_2			true		
CNAME_12_13_14_15_16_17_18_19_3	String	50	CNAME	CNAME_12_13_14_15_16_17_18_19_3			true		
NAME	String	50	NAME	NAME			true		
Code_Desc_12_13_14	String	50	Code_Desc	Code_Desc_12_13_14			true		
Species	String	255	Species	Species			true		

Surface_Water - FeatureDataset

Name Surface_Water

Description Featureclasses Pertaining to Surface Water

Area_Subject_Hydromod - FeatureClass

Name Area_Subject_Hydromod

ShapeType Polygon

FeatureType Simple

AliasName Areas Subject to Hydromodification

HasM false

HasZ false

HasAttachments false

Description This layer is a portion of two comprehensive maps of the MS4 Permit areas which identifies those areas that are tributary to potentially susceptible stream channel segments and where runoff from a future project may cause a HCOC.The Permit Areas have each been divided into two different watershed areas: Applicable and Not Applicable.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Id	Integer	4	Id	Id			false	10	0
Watershed	String	50	Watershed	Watershed			false		
Area_SqMi	Integer	4	Area_SqMi	Area_SqMi			false	10	0
Susceptibl	String	50	Susceptibl	Susceptibl			false		
County	String	50	County	County			false		

City_Storm_Drain - FeatureClass

Name	City_Storm_Drain
ShapeType	Polyline
FeatureType	Simple
AliasName	City Storm Drains
HasM	false
HasZ	false
HasAttachments	false
Description	This layer was developed by merging the Storm Drainage courses GIS data from local Cities and agencies in Riverside County.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Type	String	50	Type	Type			true		
Material	String	50	Material	Material			true		
Diameter	String	50	Diameter	Diameter			true		
Owner	String	50	Owner	Owner			true		
Jurisdiction	String	50	Jurisdiction	Jurisdiction			true		

City_Storm_Points - FeatureClass

Name City_Storm_Points
ShapeType Point
FeatureType Simple
AliasName City Storm Facility Points
HasM false
HasZ false
HasAttachments false
Description This layer was developed by merging the Storm Facility Point GIS data from local Cities and agencies in Riverside County to provide pertinent information for inventory and analysis.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
geodb_oid	Double	8	geodb_oid	geodb_oid			true	10	0
UNIQUE_ID1	Double	8	UNIQUE_ID1	UNIQUE_ID1			true	10	0
Feature_NUMB	Double	8	Feature_NUMB	Feature_NUMB			true	10	0
Featuer_ID	String	15	Feature_ID	Featuer_ID			true		
RDNUMBER	String	15	RDNUMBER	RDNUMBER			true		
SDI_NUMBER	Double	8	SDI_NUMBER	SDI_NUMBER			true	10	0
STNAME	String	41	STNAME	STNAME			true		
NAMEID	Double	8	NAMEID	NAMEID			true	38	8
PRE_DIR	String	2	PRE_DIR	PRE_DIR			true		
STREET_NAM	String	30	STREET_NAM	STREET_NAM			true		
STREET_TYP	String	4	STREET_TYP	STREET_TYP			true		
SUF_DIR	String	2	SUF_DIR	SUF_DIR			true		

LIMIT_1_ST	String	41	LIMIT_1_ST	LIMIT_1_ST			true		
LIMIT_1_DI	Double	8	LIMIT_1_DI	LIMIT_1_DI			true	38	8
LIMIT_1_D1	String	2	LIMIT_1_D1	LIMIT_1_D1			true		
LIMIT_1_AL	String	50	LIMIT_1_AL	LIMIT_1_AL			true		
LIMIT_2_ST	String	41	LIMIT_2_ST	LIMIT_2_ST			true		
LIMIT_2_DI	Double	8	LIMIT_2_DI	LIMIT_2_DI			true	38	8
LIMIT_2_D1	String	2	LIMIT_2_D1	LIMIT_2_D1			true		
LIMIT_2_AL	String	50	LIMIT_2_AL	LIMIT_2_AL			true		
FROM_ST_IN	String	50	FROM_ST_IN	FROM_ST_IN			true		
TO_ST_INTE	String	50	TO_ST_INTE	TO_ST_INTE			true		
WATERSHED	String	20	WATERSHED	WATERSHED			true		
SUP_DISTRI	Double	8	SUP_DISTRI	SUP_DISTRI			true	10	0
DISTRICT_M	String	25	DISTRICT_M	DISTRICT_M			true		
IMPROVEMEN	String	15	IMPROVEMEN	IMPROVEMEN			true		
FEATURE	String	10	FEATURE	FEATURE			true		
Feature_TYPE	String	20	Feature_TYPE	Feature_TYPE			true		
MATERIAL	String	20	MATERIAL	MATERIAL			true		
Feature_FILT	String	5	Feature_FILT	Feature_FILT			true		
NORTHING	Double	8	NORTHING	NORTHING			true	38	8
EASTING	Double	8	EASTING	EASTING			true	38	8
ELEVATION	Double	8	ELEVATION	ELEVATION			true	38	8
LENGTH	Double	8	LENGTH	LENGTH			true	38	8
WIDTH	Double	8	WIDTH	WIDTH			true	38	8
DEPTH	Double	8	DEPTH	DEPTH			true	38	8
DIAMETER	Double	8	DIAMETER	DIAMETER			true	38	8
SYSTEM_DAT	Date	36	SYSTEM_DAT	SYSTEM_DAT			true		

LAST_INSPE	Date	36	LAST_INSPE	LAST_INSPE			true		
LAST_MAINT	Date	36	LAST_MAINT	LAST_MAINT			true		
START_MAIN	Date	36	START_MAIN	START_MAIN			true		
STOP_MAINT	Date	36	STOP_MAINT	STOP_MAINT			true		
ACCUMULATI	Double	8	ACCUMULATI	ACCUMULATI			true	38	8
COMMENTS_R	String	100	COMMENTS_R	COMMENTS_R			true		
PHOTO_PTR	String	150	PHOTO_PTR	PHOTO_PTR			true		
PRIMARYIND	Double	8	PRIMARYIND	PRIMARYIND			true	10	0
GMRotation	Double	8	GMRotation	GMRotation			true	38	8
UniqueID	String	30	UniqueID	UniqueID			true		
CB_TYPE	String	50	CB_TYPE	CB_TYPE			true		
Proj_Number	String	50	Proj_Number	Proj_Number			true		
Greate_TY	String	50	Greate_TY	Greate_TY			true		
Status	String	50	Status	Status			true		
Agency	String	50	Agency	Agency			true		
Subtype	String	50	Subtype	Subtype			true		
Proj_Name	String	128	Proj_Name	Proj_Name			true		
City_Maintained	String	8	City_Maintained	City_Maintained			true		
Facility_Type	String	50	Facility_Type	Facility_Type			true		

City_Storm_Polys - FeatureClass

Name City_Storm_Polys
ShapeType Polygon
FeatureType Simple
AliasName City Storm Facilities
HasM false
HasZ false
HasAttachments false
Description Water Storage Facility Areas such as Dams, Basins, Ponds, and Leeves.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
geodb_oid	Double	8	geodb_oid	geodb_oid			true	10	0
ROADID	String	6	ROADID	ROADID			true		
FeatureID	String	15	BASINID	FeatureID			true		
FEATURE	String	10	FEATURE	FEATURE			true		
NORTHING	Double	8	NORTHING	NORTHING			true	38	8
EASTING	Double	8	EASTING	EASTING			true	38	8
ELEVATION	Double	8	ELEVATION	ELEVATION			true	38	8
VICINITY	String	40	VICINITY	VICINITY			true		
ST_NAME	String	40	ST_NAME	ST_NAME			true		
ST_TYPE	String	4	ST_TYPE	ST_TYPE			true		
SUP_DIST	String	20	SUP_DIST	SUP_DIST			true		
MAINT_DIST	String	40	MAINT_DIST	MAINT_DIST			true		
LENGTH	Double	8	LENGTH	LENGTH			true	38	8

WIDTH	Double	8	WIDTH	WIDTH			true	38	8
DEPTH	Double	8	DEPTH	DEPTH			true	38	8
MATERIAL	String	40	MATERIAL	MATERIAL			true		
IMP_PLAN	String	6	IMP_PLAN	IMP_PLAN			true		
BASIN_TYPE	String	20	BASIN_TYPE	BASIN_TYPE			true		
IN_SERVICE	String	3	IN_SERVICE	IN_SERVICE			true		
SYS_DATE	Date	36	SYS_DATE	SYS_DATE			true		
INSP_DATE	Date	36	INSP_DATE	INSP_DATE			true		
MAINT_DATE	Date	36	MAINT_DATE	MAINT_DATE			true		
QC	String	6	QC	QC			true		
COMMENTS	String	40	COMMENTS	COMMENTS			true		
WATERSHED	String	40	WATERSHED	WATERSHED			true		
SDI	String	5	SDI	SDI			true		
PHOTO_PTR	String	150	PHOTO_PTR	PHOTO_PTR			true		
GLOBALID	String	38	GLOBALID	GLOBALID			true		
SHAPE_Leng	Double	8	SHAPE_Leng	SHAPE_Leng			true	38	8
PRIMARYIND	Double	8	PRIMARYIND	PRIMARYIND			true	10	0
UniqueID	String	30	UniqueID	UniqueID			true		
GridNo	String	50	GridNo	GridNo			true		
Subtypename	String	50	Subtypename	Subtypename			true		
LifeCycleStatus	String	50	LifeCycleStatus	LifeCycleStatus			true		
Source	String	50	Source	Source			true		
Owner	String	50	Owner	Owner			true		
BarCode	String	50	BarCode	BarCode			true		
SheetNo	String	50	SheetNo	SheetNo			true		
Installed	Date	36	Installed	Installed			true		

TractNo	String	50	TractNo	TractNo			true		
DWGNo	String	50	DWGNo	DWGNo			true		
ProejctNO	String	50	ProejctNO	ProejctNO			true		
FloorElev	Double	8	FloorElev	FloorElev			true	38	8
MaxElev	Double	8	MaxElev	MaxElev			true	38	8
CityMaintained	String	50	CityMaintained	CityMaintained			true		
RefNo	String	50	RefNo	RefNo			true		
ModifyDate	String	50	ModifyDate	ModifyDate			true		
Adddate	String	50	Adddate	Adddate			true		
Maintained	String	50	Maintained	Maintained			true		

Control_Release_Locations - FeatureClass

Name	Control_Release_Locations
ShapeType	Point
FeatureType	Simple
AliasName	Control Release Locations
HasM	false
HasZ	false
HasAttachments	false
Description	This layer was developed identifing the controled release locations within Riverside County to provide pertinent information for inventory and analysis.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Id	Integer	4	Id	Id			true	10	0

Drainage_Area_Boundaries - FeatureClass

Name	Drainage_Area_Boundaries
ShapeType	Polygon
FeatureType	Simple
AliasName	Drainage Area Boundaries
HasM	false
HasZ	false
HasAttachments	false
Description	This layer was developed by merging the Drainage Area Boundary GIS datasets from the City of Corona and the City of Murrieta to provide pertinent information for inventory and analysis

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
DrainageAreaID	Double	8	ID	DrainageAreaID			false	11	0
Name	String	50	DRAREA	Name			false		
UniqueID	String	30	UniqueID	UniqueID			false		

Major_Watersheds - FeatureClass

Name	Major_Watersheds
ShapeType	Polygon
FeatureType	Simple
AliasName	Major Watersheds
HasM	false
HasZ	false
HasAttachments	false
Description	The existing hydrology watershed boundaries were provided by the Riverside County Flood Control and Water Conservation District. The watershed boundaries were updated based on: the U.S. Geological Survey (USGS)-National Hydrography Dataset (NHD), Master Plans of Drainage, Area Plans of Drainage, GIS data provided by the Permittees (drainage areas and local system storm drain data) and USGS topography.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Name	String	50	Name	Name			true		
UniqueID	String	30	UniqueID	UniqueID			true		

NPDES_WQMP - FeatureClass

Name	NPDES_WQMP
ShapeType	Point
FeatureType	Simple
AliasName	NPDES_WQMP
HasM	false
HasZ	false
HasAttachments	false
Description	Th GDB_TRANS.TRANS.NPDES_WQMP feature class is a GIS database created to aid the Transportation Department with the NPDES compliance. The GDB_TRANS.TRANS.NPDES_WQMP feature class contains the location of Transportation Department BMPs such as Detention Basins, Inlets, Culverts, Channels and Swales in the Project WQMP document. These are located in Temecula only.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
BMP_TYPE	String	50	BMP_TYPE	BMP_TYPE			true		
LATITUDE	String	20	LATITUDE	LATITUDE			true		
LONGITUDE	String	20	LONGITUDE	LONGITUDE			true		
PHOTO_PTR	String	100	PHOTO_PTR	PHOTO_PTR			true		
WIDTH	Double	8	WIDTH	WIDTH			true	38	8
DIAMETER	Double	8	DIAMETER	DIAMETER			true	38	8
WQMP_ID	SmallInteger	2	WQMP_ID	WQMP_ID			true	5	0
PROJECT_NAME	String	75	PROJECT_NAME	PROJECT_NAME			true		

RCFC_Storm_Polygons - FeatureClass

Name	RCFC_Storm_Polygons
ShapeType	Polygon
FeatureType	Simple
AliasName	RCFC Stormwater Polygons
HasM	false
HasZ	false
HasAttachments	false
Description	Water Storage Facilities. This layer was developed to delineate and locate the water storage features in Riverside County. To provide pertinent information for inventory and analysis. Includes such features as Dams, Ponds, Basins, and Leeves.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
PROJNO	String	255	PROJNO	PROJNO			true		
PROJNAME	String	255	PROJNAME	PROJNAME			true		
DESCRIPTIO	String	50	DESCRIPTIO	DESCRIPTIO			true		
DWGNO	String	255	DWGNO	DWGNO			true		
TRACT	String	255	TRACT	TRACT			true		
NOC	Date	36	NOC	NOC			true		
CONTRACTOR	String	255	CONTRACTOR	CONTRACTOR			true		
ROW_DWG	String	255	ROW_DWG	ROW_DWG			true		
PROJECT_TY	String	75	PROJECT_TY	PROJECT_TY			true		
OFFICIAL_P	String	255	OFFICIAL_P	OFFICIAL_P			true		

OFFICIAL_1	String	255	OFFICIAL_1	OFFICIAL_1			true		
START_MEAS	Double	8	START_MEAS	START_MEAS			true	38	8
END_MEASUR	Double	8	END_MEASUR	END_MEASUR			true	38	8
REVERSED_G	String	5	REVERSED_G	REVERSED_G			true		
PID	Double	8	PID	PID			true	10	0
STAGE_NUMB	String	2	STAGE_NUMB	STAGE_NUMB			true		
ACCEPTED	String	1	ACCEPTED	ACCEPTED			true		
TBM_PAGE	String	4	TBM_PAGE	TBM_PAGE			true		
UniqueID	String	30	UniqueID	UniqueID			true		
Waterbody_Name	String	75	Waterbody_Name	Waterbody_Name			true		
Type	String	50	Type	Type			true		
Status	String	50	Status	Status			true		
TMDL	String	20	TMDL	TMDL			true		
D303	String	50	D303	D303			true		

Recharge_Basins - FeatureClass

Name	Recharge_Basins
ShapeType	Polygon
FeatureType	Simple
AliasName	Recharge Basins
HasM	false
HasZ	false
HasAttachments	false
Description	Spreading basins located in the Chino Basin region only.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Id	Integer	4	Id	Id			false	10	0
Basin	String	40	Basin	Basin			false		
Active	SmallInteger	2	Active	Active			false	5	0
End_Date	Date	36	End_Date	End_Date			true		
Proj	String	15	Proj	Proj			false		
UniqueID	String	30	UniqueID	UniqueID			true		

Regional_Watersheds - FeatureClass

Name	Regional_Watersheds
ShapeType	Polygon
FeatureType	Simple
AliasName	Regional Watersheds
HasM	false
HasZ	false
HasAttachments	false
Description	Regional Watersheds. The existing hydrology watershed boundaries were predominately delineated using the U.S. Geological Survey (USGS)-National Hydrography Dataset (NHD) GIS shapefile called: NHDArea, provided by the Riverside County Flood Control and Water Conservation District. The NHD data was verified and updated using: Master Plans of Drainage, Area Plans of Drainage, GIS data provided by the Permittees (drainage areas and local system storm drain data) and USGS topography.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Id	Integer	4	Id	Id			false	10	0
Watershed	String	50	Watershed	Watershed			false		
Area_SqMi	Integer	4	Area_SqMi	Area_SqMi			false	10	0
UniqueID	String	30	UniqueID	UniqueID			true		

SemiRegional_Watersheds - FeatureClass

Name SemiRegional_Watersheds
ShapeType Polygon
FeatureType Simple
AliasName Semi-Regional Watersheds
HasM false
HasZ false
HasAttachments false
Description Semi-Regeional Watersheds. The existing hydrology watershed boundaries were predominately delineated using the U.S. Geological Survey (USGS)-National Hydrography Dataset (NHD) GIS shapefile called: NHDArea, provided by the Riverside County Flood Control and Water Conservation District. The NHD data was verified and updated using: Master Plans of Drainage, Area Plans of Drainage, GIS data provided by the Permittees (drainage areas and local system storm drain data) and USGS topography

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
Id	Integer	4	Id	Id			false	10	0
Watershed	String	50	Watershed	Watershed			false		
Area_SqMi	Integer	4	Area_SqMi	Area_SqMi			false	10	0
UniqueID	String	30	UniqueID	UniqueID			false		

SurfaceWater_Channels - FeatureClass

Name	SurfaceWater_Channels
ShapeType	Polyline
FeatureType	Simple
AliasName	Surface Water Channels
HasM	false
HasZ	false
HasAttachments	false
Description	This layer was developed to delineate and locate the drainage features in Riverside County. To provide pertinent information for inventory and analysis.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
OFCPRJNME	String	254	OFCPRJNME	OFCPRJNME			true		
OFCPRJNUM	String	254	OFCPRJNUM	OFCPRJNUM			true		
STAGE_NO	String	2	STAGE_NO	STAGE_NO			true		
DWGNO	String	254	DWGNO	DWGNO			true		
ROW_DWG	String	254	ROW_DWG	ROW_DWG			true		
DEVELOPER	String	254	DEVELOPER	DEVELOPER			true		
TRACT	String	254	TRACT	TRACT			true		
NOC	String	20	NOC	NOC			true		
PROJNAME	String	254	PROJNAME	PROJNAME			true		
PROJNO	String	254	PROJNO	PROJNO			true		
DESCRIPTIO	String	50	DESCRIPTIO	DESCRIPTIO			true		

PRJ_TYPES	String	75	PRJ_TYPES	PRJ_TYPES			true		
HCOC_SD	String	50	HCOC_SD	HCOC_SD			true		
CHECK_	String	50	CHECK_	CHECK_			true		
NewRCFC_SD	String	5	NewRCFC_SD	NewRCFC_SD			true		
Verified_	String	50	Verified_	Verified_			true		
Notes	String	50	Notes	Notes			true		
FieldVerified	String	50	FieldVerified	FieldVerified			true		
Above25000cfs	String	5	Above25000cfs	Above25000cfs		NO	true		
Above20000cfs	String	50	Above20000cfs	Above20000cfs			true		
Concrete	String	5	Concrete	Concrete	Concrete	No	true		
Watershed	String	5	Watershed	Watershed	Watershed	SAR	true		
HCOC_Legend	String	50	HCOC_Legend	HCOC_Legend			true		
Field_Verification_Legend	String	50	Field_Verification_Legend	Field_Verification_Legend			true		
TMDL_Downstream	String	50	TMDL_Downstream	TMDL_Downstream			true		
Max_Hydromod_Downstream	String	50	Max_Hydromod_Downstream	Max_Hydromod_Downstream			true		
TMDL	String	20	TMDL	TMDL			true		
D	String	20	303D	D			true		
UniqueID	String	30	UniqueID	UniqueID			true		
D303_Downstream_	String	20	D303_Downstream_	D303_Downstream_			true		
FacilitiesID	String	30	FacilitiesID	FacilitiesID			true		

Swale_Lines - FeatureClass

Name	Swale_Lines
ShapeType	Polyline
FeatureType	Simple
AliasName	Swale Lines
HasM	false
HasZ	false
HasAttachments	false
Description	The GDB_TRANS.TRANS.NPDES_SWALES_LINES feature class is a GIS database created to aid the Transportation Department with the NPDES Program compliance. The GDB_TRANS.TRANS.NPDES_SWALE_LINES feature class contains the location of Swales (storm drains) in Riverside County within the Transportation Department ROW. The Swale Lines are classified as Biological, Downdrain, Overside and Roadside.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
geodb_oid	Double	8	geodb_oid	geodb_oid			true	10	0
ROADID	String	6	ROADID	ROADID			true		
SWALEID	String	15	SWALEID	SWALEID			true		
FEATURE	String	10	FEATURE	FEATURE			true		
NORTHING	Double	8	NORTHING	NORTHING			true	38	8
EASTING	Double	8	EASTING	EASTING			true	38	8
ELEVATION	Double	8	ELEVATION	ELEVATION			true	38	8
VICINITY	String	40	VICINITY	VICINITY			true		
ST_NAME	String	40	ST_NAME	ST_NAME			true		
ST_TYPE	String	4	ST_TYPE	ST_TYPE			true		
SUP_DIST	String	20	SUP_DIST	SUP_DIST			true		

MAINT_DIST	String	40	MAINT_DIST	MAINT_DIST			true		
LENGTH	Double	8	LENGTH	LENGTH			true	38	8
WIDTH	Double	8	WIDTH	WIDTH			true	38	8
DEPTH	Double	8	DEPTH	DEPTH			true	38	8
MATERIAL	String	40	MATERIAL	MATERIAL			true		
IMP_PLAN	String	6	IMP_PLAN	IMP_PLAN			true		
SWALE_TYPE	String	20	SWALE_TYPE	SWALE_TYPE			true		
IN_SERVICE	String	3	IN_SERVICE	IN_SERVICE			true		
SYS_DATE	Date	36	SYS_DATE	SYS_DATE			true		
INSP_DATE	Date	36	INSP_DATE	INSP_DATE			true		
MAINT_DATE	Date	36	MAINT_DATE	MAINT_DATE			true		
QC	String	6	QC	QC			true		
COMMENTS	String	40	COMMENTS	COMMENTS			true		
WATERSHED	String	40	WATERSHED	WATERSHED			true		
SDI	String	5	SDI	SDI			true		
PHOTO_PTR	String	150	PHOTO_PTR	PHOTO_PTR			true		
GLOBALID	String	38	GLOBALID	GLOBALID			true		
SHAPE_Leng	Double	8	SHAPE_Leng	SHAPE_Leng			true	38	8
PRIMARYIND	Double	8	PRIMARYIND	PRIMARYIND			true	10	0
UniqueID	String	30	UniqueID	UniqueID			true		

TRANS_NPDES_BENEFICIAL_USE_WATERS - FeatureClass

Name	TRANS_NPDES_BENEFICIAL_USE_WATERS
ShapeType	Polyline
FeatureType	Simple
AliasName	TRANS_NPDES_BENEFICIAL_USE_WATERS
HasM	false
HasZ	false
HasAttachments	false
Description	The GDB_TRANS.TRANS.NPDES_BENEFIAL_USE_WATERS feature class is a GIS database created to aid the Transportation Department with the NPDES compliance. The GDB_TRANS.TRANS.NPDES_BENEFICIAL_USE_WATERS contains information in the Water Quality Control Plan such Beneficial Use of Waters, Pollutants of Concern, Reach Code, Reach Limits.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
GNIS_ID	String	12	GNIS_ID	GNIS_ID			true		
GNI_NAME	String	70	GNI_NAME	GNI_NAME			true		
LENGTHKM	Double	8	LENGTHKM	LENGTHKM			true	38	8
REACHCODE	String	16	REACHCODE	REACHCODE			true		
FTYPE	Integer	4	FTYPE	FTYPE			true	10	0
FCODE	Integer	4	FCODE	FCODE			true	10	0
FDATE	Date	36	FDATE	FDATE			true		
MUN	String	40	MUN	MUN			true		
MUN_BENEFICIAL_USE	String	70	MUN_BENEFICIAL_USE	MUN_BENEFICIAL_USE			true		
AGR	String	40	AGR	AGR			true		

AGR_BENEFICIAL_USE	String	70	AGR_BENEFICIAL_USE	AGR_BENEFICIAL_USE			true		
IND	String	40	IND	IND			true		
IND_BENEFICIAL_USE	String	70	IND_BENEFICIAL_USE	IND_BENEFICIAL_USE			true		
PROC_	String	40	PROC	PROC_			true		
PROC_BENEFICIAL_USE	String	70	PROC_BENEFICIAL_USE	PROC_BENEFICIAL_USE			true		
GWR	String	40	GWR	GWR			true		
GWR_BENEFICIAL_USE	String	70	GWR_BENEFICIAL_USE	GWR_BENEFICIAL_USE			true		
NAV	String	40	NAV	NAV			true		
NAV_BENEFICIAL_USE	String	70	NAV_BENEFICIAL_USE	NAV_BENEFICIAL_USE			true		
POW	String	40	POW	POW			true		
POW_BENEFICIAL_USE	String	70	POW_BENEFICIAL_USE	POW_BENEFICIAL_USE			true		
REC1	String	40	REC1	REC1			true		
REC1_BENEFICIAL_USE	String	70	REC1_BENEFICIAL_USE	REC1_BENEFICIAL_USE			true		
REC2	String	40	REC2	REC2			true		
REC2_BENEFICIAL_USE	String	70	REC2_BENEFICIAL_USE	REC2_BENEFICIAL_USE			true		
COMM	String	40	COMM	COMM			true		
COMM_BENEFICIAL_USE	String	70	COMM_BENEFICIAL_USE	COMM_BENEFICIAL_USE			true		
WARM	String	40	WARM	WARM			true		
WARM_BENEFICIAL_USE	String	70	WARM_BENEFICIAL_USE	WARM_BENEFICIAL_USE			true		
LWRM	String	40	LWRM	LWRM			true		
LWRM_BENEFICIAL_USE	String	70	LWRM_BENEFICIAL_USE	LWRM_BENEFICIAL_USE			true		
COLD	String	40	COLD	COLD			true		
COLD_BENEFICIAL_USE	String	70	COLD_BENEFICIAL_USE	COLD_BENEFICIAL_USE			true		
BIOL	String	40	BIOL	BIOL			true		

BIOL_BENEFICIAL_USE	String	70	BIOL_BENEFICIAL_USE	BIOL_BENEFICIAL_USE			true		
RARE	String	40	RARE	RARE			true		
RARE_BENEFICIAL_USE	String	70	RARE_BENEFICIAL_USE	RARE_BENEFICIAL_USE			true		
SPWN	String	40	SPWN	SPWN			true		
SPWN_BENEFICIAL_USE	String	70	SPWN_BENEFICIAL_USE	SPWN_BENEFICIAL_USE			true		
MAR	String	40	MAR	MAR			true		
MAR_BENEFICIAL_USE	String	70	MAR_BENEFICIAL_USE	MAR_BENEFICIAL_USE			true		
SHEL	String	40	SHEL	SHEL			true		
SHEL_BENEFICIAL_USE	String	70	SHEL_BENEFICIAL_USE	SHEL_BENEFICIAL_USE			true		
EST	String	40	EST	EST			true		
EST_BENEFICIAL_USE	String	70	EST_BENEFICIAL_USE	EST_BENEFICIAL_USE			true		
WILD	String	40	WILD	WILD			true		
WILD_BENEFICIAL_USE	String	70	WILD_BENEFICIAL_USE	WILD_BENEFICIAL_USE			true		
HYDROLOGIC_UNIT	Double	8	HYDROLOGIC_UNIT	HYDROLOGIC_UNIT			true	38	8
POLLUTANT	String	150	POLLUTANT	POLLUTANT			true		
TDS	SmallInteger	2	TDS	TDS			true	5	0
HARD	SmallInteger	2	HARD	HARD			true	5	0
NA	SmallInteger	2	NA	NA			true	5	0
CI	SmallInteger	2	CI	CI			true	5	0
TIN	SmallInteger	2	TIN	TIN			true	5	0
SO4	SmallInteger	2	SO4	SO4			true	5	0

COD	SmallInteger	2	COD	COD			true	5	0
REACH_LIMITS	String	200	REACH LIMITS	REACH_LIMITS			true		
FRSH	String	40	FRSH	FRSH			true		
FRSH_BENEFICIAL_USE	String	70	FRSH_BENEFICIAL_USE	FRSH_BENEFICIAL_USE			true		
WATERSHED	String	25	WATERSHED	WATERSHED			true		
N_P	String	5	N&P	N_P			true		
Fe	Double	8	Fe	Fe			true	38	8
Mn	Double	8	Mn	Mn			true	38	8
MBAS	Double	8	MBAS	MBAS			true	38	8
B	Double	8	B	B			true	38	8
ODOR	String	10	ODOR	ODOR			true		
Turb_NTU	SmallInteger	2	Turb_NTU	Turb_NTU			true	5	0
Color_Units	SmallInteger	2	Color_Units	Color_Units			true	5	0
F	Double	8	F	F			true	38	8
SHAPE_STLength__	Double	8	SHAPE_STLength__	SHAPE_STLength__			false	38	8

TRANS_NPDES_CULVERTS - FeatureClass

Name	TRANS_NPDES_CULVERTS
ShapeType	Multipoint
FeatureType	Simple
AliasName	Riverside County Culverts
HasM	false
HasZ	false
HasAttachments	false
Description	The GDB_TRANS.TRANS.NPDES_CULVERTS feature class is a GIS database created to aid the Transportation Department with the NPDES compliance. The GDB_TRANS.TRANS.NPDES_CULVERTS feature class contains the location of Culverts (storm drains) in Riverside County within theTransportation Department ROW and their maintenance activities such as inspections, cleaning schedules, trash removal tonnage and characterization.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
geodb_oid	Double	8	geodb_oid	geodb_oid			true	10	0
UNIQUE_ID1	Double	8	UNIQUE_ID1	UNIQUE_ID1			true	10	0
CULVERT_NU	Double	8	CULVERT_NU	CULVERT_NU			true	10	0
CULVERT_ID	String	15	CULVERT_ID	CULVERT_ID			true		
RDNUMBER	String	15	RDNUMBER	RDNUMBER			true		
SDI_NUMBER	Double	8	SDI_NUMBER	SDI_NUMBER			true	10	0
ST_NAME	String	41	ST_NAME	ST_NAME			true		
NAMEID	Double	8	NAMEID	NAMEID			true	38	8
PRE_DIR	String	2	PRE_DIR	PRE_DIR			true		
STREET_NAM	String	30	STREET_NAM	STREET_NAM			true		

STREET_TYP	String	4	STREET_TYP	STREET_TYP			true		
SUF_DIR	String	2	SUF_DIR	SUF_DIR			true		
LIMIT_1_ST	String	41	LIMIT_1_ST	LIMIT_1_ST			true		
LIMIT_1_DI	Double	8	LIMIT_1_DI	LIMIT_1_DI			true	38	8
LIMIT_1_D1	String	2	LIMIT_1_D1	LIMIT_1_D1			true		
LIMIT_1_AL	String	50	LIMIT_1_AL	LIMIT_1_AL			true		
LIMIT_2_ST	String	41	LIMIT_2_ST	LIMIT_2_ST			true		
LIMIT_2_DI	Double	8	LIMIT_2_DI	LIMIT_2_DI			true	38	8
LIMIT_2_D1	String	2	LIMIT_2_D1	LIMIT_2_D1			true		
LIMIT_2_AL	String	50	LIMIT_2_AL	LIMIT_2_AL			true		
FROM_ST_IN	String	50	FROM_ST_IN	FROM_ST_IN			true		
TO_ST_INTE	String	50	TO_ST_INTE	TO_ST_INTE			true		
WATERSHED	String	20	WATERSHED	WATERSHED			true		
SUP_DISTRI	Integer	4	SUP_DISTRI	SUP_DISTRI			true	10	0
DISTRICT_M	String	25	DISTRICT_M	DISTRICT_M			true		
IMPROVEMEN	String	15	IMPROVEMEN	IMPROVEMEN			true		
FEATURE	String	10	FEATURE	FEATURE			true		
CULVERT_TY	String	20	CULVERT_TY	CULVERT_TY			true		
MATERIAL	String	20	MATERIAL	MATERIAL			true		
NORTHING	Double	8	NORTHING	NORTHING			true	38	8
EASTING	Double	8	EASTING	EASTING			true	38	8
ELEVATION	Double	8	ELEVATION	ELEVATION			true	38	8
LENGTH	Double	8	LENGTH	LENGTH			true	38	8
WIDTH	Double	8	WIDTH	WIDTH			true	38	8
DEPTH	Double	8	DEPTH	DEPTH			true	38	8
DIAMETER	Double	8	DIAMETER	DIAMETER			true	38	8

SYSTEM_DAT	Date	36	SYSTEM_DAT	SYSTEM_DAT			true		
LAST_INSPE	Date	36	LAST_INSPE	LAST_INSPE			true		
LAST_MAINT	Date	36	LAST_MAINT	LAST_MAINT			true		
START_MAIN	Date	36	START_MAIN	START_MAIN			true		
STOP_MAINT	Date	36	STOP_MAINT	STOP_MAINT			true		
ACCUMULATI	Double	8	ACCUMULATI	ACCUMULATI			true	38	8
COMMENTS_R	String	100	COMMENTS_R	COMMENTS_R			true		
PHOTO_PTR	String	150	PHOTO_PTR	PHOTO_PTR			true		
PRIMARYIND	Double	8	PRIMARYIND	PRIMARYIND			true	10	0

TRANS_NPDES_INLETS - FeatureClass

Name	TRANS_NPDES_INLETS
ShapeType	Multipoint
FeatureType	Simple
AliasName	Riverside County Inlets
HasM	false
HasZ	false
HasAttachments	false
Description	The GDB_TRANS.TRANS.NPDES_INLETS feature class is a GIS database created to aid the Transportation Department with the NPDES compliance. The GDB_TRANS.TRANS.NPDES_INLETS feature class contains the location of Inlets (storm drains) in Riverside County within the Transportation Department ROW and their maintenance activities such as inspections, cleaning schedules, trash removal tonnage and characterization.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
geodb_oid	Double	8	geodb_oid	geodb_oid			true	10	0
UNIQUE_ID1	Double	8	UNIQUE_ID1	UNIQUE_ID1			true	10	0
INLET_NUMB	Double	8	INLET_NUMB	INLET_NUMB			true	10	0
INLET_ID	String	15	INLET_ID	INLET_ID			true		
RDNUMBER	String	15	RDNUMBER	RDNUMBER			true		
SDI_NUMBER	Double	8	SDI_NUMBER	SDI_NUMBER			true	10	0
STNAME	String	41	STNAME	STNAME			true		
NAMEID	Double	8	NAMEID	NAMEID			true	38	8
PRE_DIR	String	2	PRE_DIR	PRE_DIR			true		
STREET_NAM	String	30	STREET_NAM	STREET_NAM			true		

STREET_TYP	String	4	STREET_TYP	STREET_TYP			true		
SUF_DIR	String	2	SUF_DIR	SUF_DIR			true		
LIMIT_1_ST	String	41	LIMIT_1_ST	LIMIT_1_ST			true		
LIMIT_1_DI	Double	8	LIMIT_1_DI	LIMIT_1_DI			true	38	8
LIMIT_1_D1	String	2	LIMIT_1_D1	LIMIT_1_D1			true		
LIMIT_1_AL	String	50	LIMIT_1_AL	LIMIT_1_AL			true		
LIMIT_2_ST	String	41	LIMIT_2_ST	LIMIT_2_ST			true		
LIMIT_2_DI	Double	8	LIMIT_2_DI	LIMIT_2_DI			true	38	8
LIMIT_2_D1	String	2	LIMIT_2_D1	LIMIT_2_D1			true		
LIMIT_2_AL	String	50	LIMIT_2_AL	LIMIT_2_AL			true		
FROM_ST_IN	String	50	FROM_ST_IN	FROM_ST_IN			true		
TO_ST_INTE	String	50	TO_ST_INTE	TO_ST_INTE			true		
WATERSHED	String	20	WATERSHED	WATERSHED			true		
SUP_DISTRI	Double	8	SUP_DISTRI	SUP_DISTRI			true	10	0
DISTRICT_M	String	25	DISTRICT_M	DISTRICT_M			true		
IMPROVEMEN	String	15	IMPROVEMEN	IMPROVEMEN			true		
FEATURE	String	10	FEATURE	FEATURE			true		
INLET_TYPE	String	20	INLET_TYPE	INLET_TYPE			true		
MATERIAL	String	20	MATERIAL	MATERIAL			true		
INLET_FILT	String	5	INLET_FILT	INLET_FILT			true		
NORTHING	Double	8	NORTHING	NORTHING			true	38	8
EASTING	Double	8	EASTING	EASTING			true	38	8
ELEVATION	Double	8	ELEVATION	ELEVATION			true	38	8
LENGTH	Double	8	LENGTH	LENGTH			true	38	8
WIDTH	Double	8	WIDTH	WIDTH			true	38	8
DEPTH	Double	8	DEPTH	DEPTH			true	38	8

DIAMETER	Double	8	DIAMETER	DIAMETER			true	38	8
SYSTEM_DAT	Date	36	SYSTEM_DAT	SYSTEM_DAT			true		
LAST_INSPE	Date	36	LAST_INSPE	LAST_INSPE			true		
LAST_MAINT	Date	36	LAST_MAINT	LAST_MAINT			true		
START_MAIN	Date	36	START_MAIN	START_MAIN			true		
STOP_MAINT	Date	36	STOP_MAINT	STOP_MAINT			true		
ACCUMULATI	Double	8	ACCUMULATI	ACCUMULATI			true	38	8
COMMENTS_R	String	100	COMMENTS_R	COMMENTS_R			true		
PHOTO_PTR	String	150	PHOTO_PTR	PHOTO_PTR			true		
PRIMARYIND	Double	8	PRIMARYIND	PRIMARYIND			true	10	0

TRANS_NPDES_OUTFALLS - FeatureClass

Name	TRANS_NPDES_OUTFALLS
ShapeType	Point
FeatureType	Simple
AliasName	Riverside County Transportation Outfalls
HasM	false
HasZ	false
HasAttachments	false
Description	Outfall: the point where storm water outlets to waters of the United States e.g. close or open.Per the MRP, 40 C.F.R. 122.26(b)(5) defines a Major Outfalls: A Municipal Separate Storm Sewer Outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyence other than circular pipe which is associated with a drainage area of more than 50 acres. The GDB_TRANS.TRANS.NPDES_OUTFALLS feature class contains the location of Outfalls in Riverside County within the Transportation Department ROW.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
PERMITEE_OUTFALL_ID	SmallInteger	2	PERMITEE_OUTFALL_ID	PERMITEE_OUTFALL_ID			true	5	0
PROJECT_NAME	String	40	PROJECT_NAME	PROJECT_NAME			true		
PROJECT_NUMBER	String	20	PROJECT_NUMBER	PROJECT_NUMBER			true		
STREET_NAME	String	50	STREET_NAME	STREET_NAME			true		
CROSS_STREET	String	50	CROSS_STREET	CROSS_STREET			true		
RECEIVING_WATERS	String	50	RECEIVING_WATERS	RECEIVING_WATERS			true		
FLOWING_RECEIVING_WATERS	String	10	FLOWING_RECEIVING_WATERS	FLOWING_RECEIVING_WATERS			true		
FLOWING_OUTFALL	String	10	FLOWING_OUTFALL	FLOWING_OUTFALL			true		

OUTFALL_TYPE	String	30	OUTFALL_TYPE	OUTFALL_TYPE			true		
DIAMETER_BASE_WIDTH	Double	8	DIAMETER_BASE_WIDTH	DIAMETER_BASE_WIDTH			true	38	8
HEIGHT	Double	8	HEIGHT	HEIGHT			true	38	8
LATITUDE	String	20	LATITUDE	LATITUDE			true		
LONGITUDE	String	20	LONGITUDE	LONGITUDE			true		
DD_LATITUDE	Double	8	DD_LATITUDE	DD_LATITUDE			true	38	8
DD_LONGITUDE	Double	8	DD_LONGITUDE	DD_LONGITUDE			true	38	8
FIELD_DATE	Date	36	FIELD_DATE	FIELD_DATE			true		
NOTES	String	50	NOTES	NOTES			true		
COMMENTS	String	50	COMMENTS	COMMENTS			true		
ROADBOOK_PAGE	String	10	ROADBOOK_PAGE	ROADBOOK_PAGE			true		
PHOTO	String	100	PHOTO	PHOTO			true		

TRANS_NPDES_OUTLETS - FeatureClass

Name	TRANS_NPDES_OUTLETS
ShapeType	Multipoint
FeatureType	Simple
AliasName	Riverside County Outlets
HasM	false
HasZ	false
HasAttachments	false
Description	The GDB_TRANS.TRANS.NPDES_OUTLETS feature class is a GIS database created to aid the Transportation Department with the NPDES compliance. The GDB_TRANS.TRANS.NPDES_OUTLETS feature class contains the location of Outlets (storm drains) in Riverside County within the Transportation Department ROW and their maintenance activities such as inspections, cleaning schedules, trash removal tonnage and characterization.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
geodb_oid	Double	8	geodb_oid	geodb_oid			true	10	0
UNIQUE_ID1	Double	8	UNIQUE_ID1	UNIQUE_ID1			true	10	0
OUTLET_NUM	Double	8	OUTLET_NUM	OUTLET_NUM			true	10	0
OUTLET_ID	String	15	OUTLET_ID	OUTLET_ID			true		
RDNUMBER	String	15	RDNUMBER	RDNUMBER			true		
SDI_NUMBER	Double	8	SDI_NUMBER	SDI_NUMBER			true	10	0
STNAME	String	41	STNAME	STNAME			true		
NAMEID	Double	8	NAMEID	NAMEID			true	38	8
PRE_DIR	String	2	PRE_DIR	PRE_DIR			true		
STREET_NAM	String	30	STREET_NAM	STREET_NAM			true		

STREET_TYP	String	4	STREET_TYP	STREET_TYP			true		
SUF_DIR	String	2	SUF_DIR	SUF_DIR			true		
LIMIT_1_ST	String	41	LIMIT_1_ST	LIMIT_1_ST			true		
LIMIT_1_DI	Double	8	LIMIT_1_DI	LIMIT_1_DI			true	38	8
LIMIT_1_D1	String	2	LIMIT_1_D1	LIMIT_1_D1			true		
LIMIT_1_AL	String	50	LIMIT_1_AL	LIMIT_1_AL			true		
LIMIT_2_ST	String	41	LIMIT_2_ST	LIMIT_2_ST			true		
LIMIT_2_DI	Double	8	LIMIT_2_DI	LIMIT_2_DI			true	38	8
LIMIT_2_D1	String	2	LIMIT_2_D1	LIMIT_2_D1			true		
LIMIT_2_AL	String	50	LIMIT_2_AL	LIMIT_2_AL			true		
FROM_ST_IN	String	50	FROM_ST_IN	FROM_ST_IN			true		
TO_ST_INTE	String	50	TO_ST_INTE	TO_ST_INTE			true		
WATERSHED	String	20	WATERSHED	WATERSHED			true		
SUP_DISTRI	Integer	4	SUP_DISTRI	SUP_DISTRI			true	10	0
DISTRICT_M	String	25	DISTRICT_M	DISTRICT_M			true		
IMPROVEMEN	String	15	IMPROVEMEN	IMPROVEMEN			true		
FEATURE	String	10	FEATURE	FEATURE			true		
OUTLET_TYP	String	20	OUTLET_TYP	OUTLET_TYP			true		
MATERIAL	String	20	MATERIAL	MATERIAL			true		
NORTHING	Double	8	NORTHING	NORTHING			true	38	8
EASTING	Double	8	EASTING	EASTING			true	38	8
ELEVATION	Double	8	ELEVATION	ELEVATION			true	38	8
LENGTH	Double	8	LENGTH	LENGTH			true	38	8
WIDTH	Double	8	WIDTH	WIDTH			true	38	8
DEPTH	Double	8	DEPTH	DEPTH			true	38	8
DIAMETER	Double	8	DIAMETER	DIAMETER			true	38	8

SYSTEM_DAT	Date	36	SYSTEM_DAT	SYSTEM_DAT			true		
LAST_INSPE	Date	36	LAST_INSPE	LAST_INSPE			true		
LAST_MAINT	Date	36	LAST_MAINT	LAST_MAINT			true		
START_MAIN	Date	36	START_MAIN	START_MAIN			true		
STOP_MAINT	Date	36	STOP_MAINT	STOP_MAINT			true		
ACCUMULATI	Double	8	ACCUMULATI	ACCUMULATI			true	38	8
COMMENTS_R	String	100	COMMENTS_R	COMMENTS_R			true		
PHOTO_PTR	String	150	PHOTO_PTR	PHOTO_PTR			true		
PRIMARYIND	Double	8	PRIMARYIND	PRIMARYIND			true	10	0

TRANS_NPDES_SWALES - FeatureClass

Name	TRANS_NPDES_SWALES
ShapeType	Multipoint
FeatureType	Simple
AliasName	Riverside County Swales
HasM	false
HasZ	false
HasAttachments	false
Description	The GDB_TRANS.TRANS.NPDES_SWALES feature class is a GIS database created to aid the Transportation Department with the NPDES compliance. The GDB_TRANS.TRANS.NPDES_SWALES feature class contains the location of Swales (storm drains) in Riverside County within the Transportation Department ROW and their maintenance activities such as inspections, cleaning schedules, trash removal tonnage and characterization.

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
geodb_oid	Double	8	geodb_oid	geodb_oid			true	10	0
UNIQUE_ID1	Double	8	UNIQUE_ID1	UNIQUE_ID1			true	10	0
SWALE_NUMB	Double	8	SWALE_NUMB	SWALE_NUMB			true	10	0
SWALE_ID	String	15	SWALE_ID	SWALE_ID			true		
RDNUMBER	String	15	RDNUMBER	RDNUMBER			true		
SDI_NUMBER	Double	8	SDI_NUMBER	SDI_NUMBER			true	10	0
STNAME	String	41	STNAME	STNAME			true		
NAMEID	Double	8	NAMEID	NAMEID			true	38	8
PRE_DIR	String	2	PRE_DIR	PRE_DIR			true		
STREET_NAM	String	30	STREET_NAM	STREET_NAM			true		

STREET_TYP	String	4	STREET_TYP	STREET_TYP			true		
SUF_DIR	String	2	SUF_DIR	SUF_DIR			true		
LIMIT_1_ST	String	41	LIMIT_1_ST	LIMIT_1_ST			true		
LIMIT_1_DI	Double	8	LIMIT_1_DI	LIMIT_1_DI			true	38	8
LIMIT_1_D1	String	2	LIMIT_1_D1	LIMIT_1_D1			true		
LIMIT_1_AL	String	50	LIMIT_1_AL	LIMIT_1_AL			true		
LIMIT_2_ST	String	41	LIMIT_2_ST	LIMIT_2_ST			true		
LIMIT_2_DI	Double	8	LIMIT_2_DI	LIMIT_2_DI			true	38	8
LIMIT_2_D1	String	2	LIMIT_2_D1	LIMIT_2_D1			true		
LIMIT_2_AL	String	50	LIMIT_2_AL	LIMIT_2_AL			true		
WATERSHED	String	20	WATERSHED	WATERSHED			true		
SUP_DISTRI	Integer	4	SUP_DISTRI	SUP_DISTRI			true	10	0
DISTRICT_M	String	25	DISTRICT_M	DISTRICT_M			true		
IMPROVEMEN	String	15	IMPROVEMEN	IMPROVEMEN			true		
FEATURE	String	10	FEATURE	FEATURE			true		
SWALE_TYPE	String	20	SWALE_TYPE	SWALE_TYPE			true		
MATERIAL	String	20	MATERIAL	MATERIAL			true		
NORTHING	Double	8	NORTHING	NORTHING			true	38	8
EASTING	Double	8	EASTING	EASTING			true	38	8
ELEVATION	Double	8	ELEVATION	ELEVATION			true	38	8
LENGTH	Double	8	LENGTH	LENGTH			true	38	8
WIDTH	Double	8	WIDTH	WIDTH			true	38	8
DEPTH	Double	8	DEPTH	DEPTH			true	38	8
DIAMETER	Double	8	DIAMETER	DIAMETER			true	38	8
SYSTEM_DAT	Date	36	SYSTEM_DAT	SYSTEM_DAT			true		
LAST_INSPE	Date	36	LAST_INSPE	LAST_INSPE			true		

LAST_MAINT	Date	36	LAST_MAINT	LAST_MAINT			true		
START_MAIN	Date	36	START_MAIN	START_MAIN			true		
STOP_MAINT	Date	36	STOP_MAINT	STOP_MAINT			true		
ACCUMULATI	Double	8	ACCUMULATI	ACCUMULATI			true	38	8
COMMENTS	String	100	COMMENTS	COMMENTS			true		
PHOTO_PTR	String	150	PHOTO_PTR	PHOTO_PTR			true		
PRIMARYIND	Double	8	PRIMARYIND	PRIMARYIND			true	10	0
UniqueID	String	30	UniqueID	UniqueID			true		

Tables

As_Builts - Table

Name As_Builts

AliasName As_Builts

HasAttachments false

Description As-Builts

Field	DataType	Length	AliasName	Description	Domain	DefaultValue	IsNullable	Precision	Scale
UniqueID	String	255	UniqueID	UniqueID			true		
FacilityName	String	255	FacilityName	FacilityName			true		
ReachDescrip	String	255	ReachDescrip	ReachDescrip			true		
path	String	255	path	path			true		
AsBuilt	String	255	AsBuilt	AsBuilt			true		
fullpath	String	255	fullpath	fullpath			true		

Raster Datasets

Dep_toGW - RasterDataset

Name Dep_toGW

Format SDR

CompressionType LZ77

BandCount 1

Description Dep_toGW

Band Name	Pixel Type	Mean Cell Height	Mean Cell Width
Band_1	F32	1000	1000

DTM - RasterDataset

Name DTM

Format SDR

CompressionType LZ77

BandCount 1

Description DTM

Band Name	Pixel Type	Mean Cell Height	Mean Cell Width
Band_1	F32	16	16

SLOPE_PERCENT - RasterDataset

Name SLOPE_PERCENT

Format SDR

CompressionType LZ77

BandCount 1

Description SLOPE_PERCENT

Band Name	Pixel Type	Mean Cell Height	Mean Cell Width
Band_1	F32	16	16

Domains

CENTERLINE_MAINT_CODE_NEW - Domain

DomainName	CENTERLINE_MAINT_CODE_NEW
Description	Type_Value
FieldType	String
Domain Type	CodedValue
Owner	SDE

Code	Name
C15	Abandoned
C11	Accepted for Public Use
C27	Accepted for Public Use/Vacated
C29	City Road
C31	Dedicated and Accepted/CSD Maintained
C10	Dirt Surface (CREF)
C09	Dirt Surface Maintained
C24	Dirt Surface Maintained/Accepted
C25	Dirt Surface Maintained/Non-County
C26	Dirt Surface Maintained/Vacated
C04	F.A.S. Maintained
C17	F.A.S. Maintained/Non-County

C03	F.A.U. Maintained
C16	F.A.U. Maintained/Non-County
C01	Federal Aid Interstate
C08	Graveled Surface (CREF)
C07	Graveled Surface Maintained
C21	Graveled Surface Maintained/Accepted
C22	Graveled Surface Maintained/Non-County
C23	Graveled Surface Maintained/Vacated
C28	Maintained Under Contract
C13	Non-County Road
C12	Non-County/Acceted for P.U.
C30	Paved Maitained/Dirt Maitained
C06	Paved Surface (CREF)
C05	Paved Surface Maintained
C18	Paved Surface Maintained/Accepted
C19	Paved Surface Maintained/Non-County
C20	Paved Surface Maintained/Vacated
C02	State Highway
C99	Undefined
C14	Vacated
W06	Dirt Surface Maintained/Maintained for City
W05	F.A.U. Maintained/Maintained for City
W01	Maintained for City
W04	Maintained for City/Accepted
W02	Maintained for City/Non-County
W03	Maintained for City/Non-County (Reversed)

W07	Graveled Surface Maintained/Maintained for City
W08	Paved Surface Maintained/Maintained for City
Z01	Traffic Division Modeling Connectivity Use Only

Concrete - Domain

DomainName	Concrete
Description	Fully Concrete Lined
FieldType	String
Domain Type	CodedValue
Owner	SDE

Code	Name
No	No
Yes	Yes

CONTOUR_TYPE_Rules - Domain

DomainName CONTOUR_TYPE_Rules

Description Representation rules

FieldType Integer

Domain Type CodedValue

Owner SDE

Code	Name
1	INDEX CONTOUR
2	INTERMEDIATE CONTOUR
3	INDEX DEPRESSION
4	INTERMEDIATE DEPRESSION

GP_FOUNDATION_Rules - Domain

DomainName	GP_FOUNDATION_Rules
Description	Representation rules
FieldType	Integer
Domain Type	Range
Owner	SDE

Minimum Value	Maximum Value

GP_LANDUSE_Rules - Domain

DomainName	GP_LANDUSE_Rules
Description	Representation rules
FieldType	Integer
Domain Type	CodedValue
Owner	SDE

Code	Name
1	Estate Residential
2	RC-EDR
3	Very Low Density Residential
4	RC-VLDR
5	Low Density Residential
6	RC-LDR
7	Medium Density Residential
8	Medium High Density Residential
9	High Density Residential
10	Very High Density Residential
11	Highest Density Residential
12	Commercial Retail
13	Commercial Tourist
14	Commercial Office
15	Community Center
16	Light Industrial

17	Heavy Industrial
18	Business Park
19	Public Facilities
20	Mixed Use Policy Area
21	Rural Residential
22	Rural Mountainous
23	Rural Desert
24	Agriculture
25	Conservation
26	Conservation Habitat
27	Open Space Recreation
28	Open Space Rural
29	Water
30	Mineral Resources
31	Indian Lands
32	CITY
33	Freeway

GP_OVERLAY_Rules - Domain

DomainName	GP_OVERLAY_Rules
Description	Representation rules
FieldType	Integer
Domain Type	Range
Owner	SDE

Minimum Value	Maximum Value

HCOC_SD - Domain

DomainName HCOC_SD

Description Riverside Channel Classifications

FieldType String

Domain Type CodedValue

Owner SDE

Code	Name
EFHM	EFHM
EPHM	EPHM
EEM	EEM
NEE	NEE
NAT	NAT
Null	Null

PUBLIC_SITES_REP_Rules - Domain

DomainName	PUBLIC_SITES_REP_Rules
Description	Representation rules
FieldType	Integer
Domain Type	CodedValue
Owner	SDE

Code	Name
1	<all other values>
2	AGRICULTURAL COMMISSION
3	ANIMAL SERVICES
4	ASSESSOR/CLERK/RECORDER
5	AUDITOR
6	BOARD OF SUPERVISORS/CLERK OF BOARD
7	CHILD SUPPORT SERVICES
8	CITYHALL
9	COMMUNITY HEALTH AGENCY
10	COUNTY ADMIN
11	COUNTY COUNSEL
12	DISTRICT ATTORNEY
13	DMV
14	ECONOMIC DEVELOPMENT AGENCY
15	ENVIRONMENTAL HEALTH
16	EXECUTIVE OFFICE

17	FACILITIES MANAGEMENT
18	FIRE & EMERGENCY SERVICES
19	FIRESTATION
20	FLEET SERVICES
21	FLOOD CONTROL
22	HOSPITAL
23	HUMAN RESOURCES
24	INFORMATION TECHNOLOGY
25	LIBRARY
26	MENTAL HEALTH
27	METROLINK
28	MUSEUM
29	POLICE
30	PROBATION
31	PUBLIC DEFENDER
32	PUBLIC SOCIAL SERVICES
33	REGIONAL PARKS & OPEN SPACE
34	REGISTRAR OF VOTERS
35	SHERIFF
36	SUPERIOR COURT
37	TRANSPORTATION AND LAND MANAGEMENT AGENCY
38	TREASURER/TAX COLLECTOR
39	VETERANS SERVICES
40	WASTE MANAGEMENT

Watershed - Domain

DomainName	Watershed
Description	Watershed
FieldType	String
Domain Type	CodedValue
Owner	SDE

Code	Name
SAR	SAR
SMR	SMR
WW	WW

ZONING_Rep1_Rules - Domain

DomainName	ZONING_Rep1_Rules
Description	Representation rules
FieldType	Integer
Domain Type	CodedValue
Owner	SDE

Code	Name
1	A-1
2	A-1-1
3	A-1-1 1/2
4	A-1-1/2
5	A-1-10
6	A-1-15
7	A-1-2
8	A-1-2 1/2
9	A-1-2 1/4
10	A-1-20
11	A-1-30000
12	A-1-4
13	A-1-40
14	A-1-5
15	A-2
16	A-2-1

17	A-2-10
18	A-2-2
19	A-2-2 1/2
20	A-2-20
21	A-2-5
22	A-D
23	A-P
24	A-P-10
25	A-P-2 1/2
26	A-P-5
27	C-1/C-P
28	C-C/V
29	C-O
30	C-P-S
31	C-P-S-2 1/2
32	C-R
33	C-T
34	C/V
35	C/V-10
36	C/V-2 1/2
37	C/V-20
38	C/V-340
39	C/V-5
40	I-P
41	LAKE
42	M-H

43	M-H-1
44	M-H-10
45	M-H-2 1/2
46	M-H-5
47	M-M
48	M-M-3
49	M-M-5
50	M-R
51	M-R-A
52	M-SC
53	M-SC-1
54	M-SC-5
55	N-A
56	N-A-160
57	N-A-40
58	N-A-640
59	N-A-80
60	R-1
61	R-1-1
62	R-1-1 1/4
63	R-1-1/2
64	R-1-10
65	R-1-100
66	R-1-10000
67	R-1-12000
68	R-1-14000

69	R-1-15000
70	R-1-16000
71	R-1-18000
72	R-1-2
73	R-1-2 1/2
74	R-1-20
75	R-1-20000
76	R-1-30000
77	R-1-40000
78	R-1-5
79	R-1-7200
80	R-1-80
81	R-1-8000
82	R-1-9000
83	R-1-9500
84	R-1-A
85	R-1A
86	R-1A-1
87	R-1A-1 1/2
88	R-1A-10
89	R-1A-15000
90	R-1A-2
91	R-1A-2 1/2
92	R-1A-20
93	R-1A-20000
94	R-1A-5

95	R-1A-9000
96	R-2
97	R-2-10
98	R-2-3000
99	R-2-3500
100	R-2-3600
101	R-2-4000
102	R-2-5000
103	R-2-5100
104	R-2-6000
105	R-2-6500
106	R-2-7000
107	R-2-80
108	R-2-8000
109	R-2A
110	R-2A-3200
111	R-2A-3400
112	R-2A-3500
113	R-3
114	R-3-2000
115	R-3-2500
116	R-3-3000
117	R-3-30000
118	R-3-4000
119	R-3-6000
120	R-3-7200

121	R-3-8000
122	R-3A
123	R-3A-20000
124	R-4
125	R-4-6500
126	R-4-7800
127	R-4-9200
128	R-5
129	R-6
130	R-A
131	R-A-1
132	R-A-1 1/2
133	R-A-1 1/4
134	R-A-1/2
135	R-A-10
136	R-A-120
137	R-A-2
138	R-A-2 1/2
139	R-A-2 1/4
140	R-A-20
141	R-A-20000
142	R-A-3
143	R-A-3 1/2
144	R-A-30000
145	R-A-4
146	R-A-40

147	R-A-5
148	R-A-9
149	R-D
150	R-R
151	R-R-1
152	R-R-1/2
153	R-R-10
154	R-R-2 1/2
155	R-R-20
156	R-R-5
157	R-T
158	R-T-1
159	R-T-1 1/4
160	R-T-12000
161	R-T-2 1/2
162	R-T-20000
163	R-T-5
164	R-T-7200
165	R-T-8700
166	R-T-R
167	R-T-R-1
168	R-T-R-2 1/2
169	R-VC
170	SP ZONE
171	W-1
172	W-1-10

173	W-1-20
174	W-1-9
175	W-2
176	W-2-1
177	W-2-10
178	W-2-140
179	W-2-160
180	W-2-2 1/2
181	W-2-20
182	W-2-40
183	W-2-5
184	W-2-M
185	W-2-M-1
186	W-2-M-1/2
187	W-2-M-10
188	W-2-M-2
189	W-2-M-2 1/2
190	W-2-M-20
191	W-2-M-3
192	W-2-M-5
193	W-E